

LBT-A30/A30K

SERVICE MANUAL



E Model
LBT-A30/A30K

Australian Model
LBT-A30

These system are composed of following models.
As for the service manual, it is issued for each
component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-A30		LBT-A30K	
	E2,AUS	E3	E,MY	EA
DECK RECEIVER	HST-A30		HST-A30K	
TURN TABLE	PS-LX49P	—		
CD PLAYER	CDP-M33 (Option)			
CD CHANGER	CDP-C322M (Option)			
SPEAKER SYSTEM	SS-D33			

NOTE:

PARTS LIST

The components identified by mark Δ or
dotted line with mark Δ are critical for
safety.
Replace only with part number specified.

• Items marked "*" are not stocked since
they are seldom required for routine
service. Some delay should be anticipated
when ordering these items.

Part No.	Description	Remarks	Part No.	Description	Remarks
1-501-374-11	ANTENNA, LOOP		*4-952-976-01	SPACER(R) (E3, EA, AUS, MY)	
1-690-727-11	CORD (SPEAKER)		*4-952-142-01	SPACER(F) (E2:HST-A30)	
Δ 1-569-007-11	ADAPTER, CONVERSION (E3:HST-A30, MY:HST-A30K)		8-812-030-90	MICROPHONE, DYNAMIC F=VJ10A(HST-A30K)	
Δ 1-569-008-11	ADAPTER, CONVERSION (EA:HST-A30K)		1-465-697-11	REMOTE COMMANDER (RM-S305)	
3-754-672-51	MANUAL, INSTRUCTION (HST-A30, HST-A30K) (English, French, Spanish, Chinese)		3-707-584-01	COVER, BATTERY (RM-S305)	
3-754-672-71	MANUAL, INSTRUCTION (EA:HST-A30K) (Arabic)		*3-703-713-41	STICKER, SONY SYMBOL(10)	
*4-951-372-02	INDIVIDUAL CARTON (E3:HST-A30)		4-921-934-01	SHEET, PROTECTION	
*4-951-326-01	INDIVIDUAL CARTON (E2:HST-A30)		4-952-144-01	PARTITION	
*4-951-330-02	INDIVIDUAL CARTON (E3, MY:HST-A30K)		*4-949-865-01	CUSHION(E2, AUS:HST-A30)	
*4-951-328-02	INDIVIDUAL CARTON (AUS:HST-A30)				
E2 : 120V AC model	AUS : Australian model				
E3 : 240V AC model	EA : Saudi Arabia model				
	MY : Malaysia model				

COMPACT Hi-Fi STEREO SYSTEM
SONY®



9-957-106-11

Sony Corporation
Audio Group

English
92D1920-1
Printed in Japan
© 1992.4

Published by Customer Relations and Service Group

HST-A30/A30K

SERVICE MANUAL

6407


E Model
HST-A30/HST-A30K

Australian Model
HST-A30



Photo : HST-A30K

HST-A30/A30K are the
STEREO DECK RECEIVER
in LBT-A30/A30K.

Dolby noise reduction manufactured under license
from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks
of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	HST-D307	
Tape Transport Mechanism Type	DECK A	TCM-190RA12CL
	DECK B	TCM-190RB22CL

Tuner System

FM stereo
FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 to 108 MHz
Antenna 75 ohms unbalanced
300 ohms balanced

Intermediate frequency 10.7 MHz

AM tuning section

Tuning range 531 to 1,602 kHz (at 9 kHz step)
530 to 1,710 kHz (at 10 kHz step)

Antenna AM loop antenna
External antenna terminal

Intermediate frequency 450 kHz

Amplifier

Peak music power output 700 W (6 ohms, 4 speakers driven)
Continuous RMS power output
55 W + 55 W (6 ohms, at 1 kHz, 5% THD)

Input	Jack type	Sensitivity	Impedance
CD IN	Phono	300 mV	47 kilohms
VIDEO IN	Phono	300 mV	47 kilohms
PHONO IN	Phono	3 mV	47 kilohms
MIC *	Phone	1 mV	10 kilohms
MIC 1 **	Phone	1 mV	10 kilohms
MIC 2 **	Phone	1 mV	10 kilohms

* For HST-A30
** For HST-A30K



SPECIFICATIONS

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 8-16 ohms
HEADPHONES	Stereo phone	Accepts headphones of 8 ohms or more

Frequency response CD: 15 Hz to 50 kHz ± 3 dB

Cassette deck

Recording system 4-track 2-channel stereo
Frequency response DOLBY NR OFF
With Type II cassette (Sony UX-S)
40 Hz to 14 kHz (± 3 dB)
With Type I cassette (Sony HF-S)
40 Hz to 13 kHz (± 3 dB)
0.1 % (WRMS)

Wow and flutter

General

Power requirements 110 - 120 V/220 - 240 V AC, adjustable
with the VOLTAGE SELECTOR, 50/60
Hz
Power consumption 165 W
AC outlet switched 100 W max.
Weight Approx. 10.1 kg
Dimensions Approx. 355 x 380 x 325 mm
(w/h/d, including projections)

- continued on next page -

COMPACT Hi-Fi STEREO SYSTEM
SONY®

6407

Turntable (only for Latin American and Australian models)
 Platter 30 cm
 Tone arm type Dynamically balanced
 Cartridge type Moving magnet type
 Stylus CN-234 (0.6 mil diamond)
 Weight Approx. 2.3 kg
 Dimensions Approx. 355 × 95 × 345 mm
 (w/h/d, including projections)

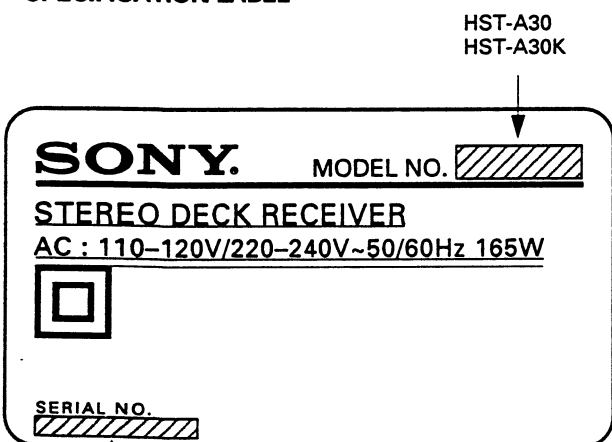
Speaker system (SS-D33)
 Speaker system 3 way, 16 ohms
 Weight Approx. 6.8 kg per speaker
 Dimensions Approx. 280 × 480 × 245 mm
 (w/h/d, including projections)

Supplied accessories
 45-rpm adaptor (1) (only for Latin American and Australian models)
 Remote commander RM-S305 (1)
 FM wire antenna (1)
 AM loop antenna (1)
 Batteries Sony SUM-3 (NS) (2)
 Speaker cord (2)
 Microphone (1) (only for LBT-A30K)

Design and specifications are subject to change without notice.

MODEL IDENTIFICATION

- SPECIFICATION LABEL -



HST-A30 E Model : SONY CORP
 HST-A30 Australian Model : MADE IN MALAYSIA
 HST-A30K Saudi Arabia Model : MADE IN JAPAN
 HST-A30K E Model, MALAYSIA Model : SONY CORP

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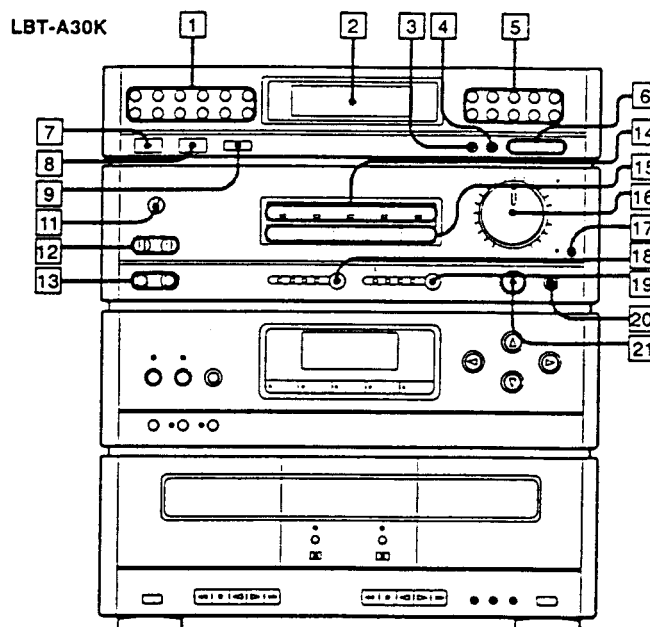
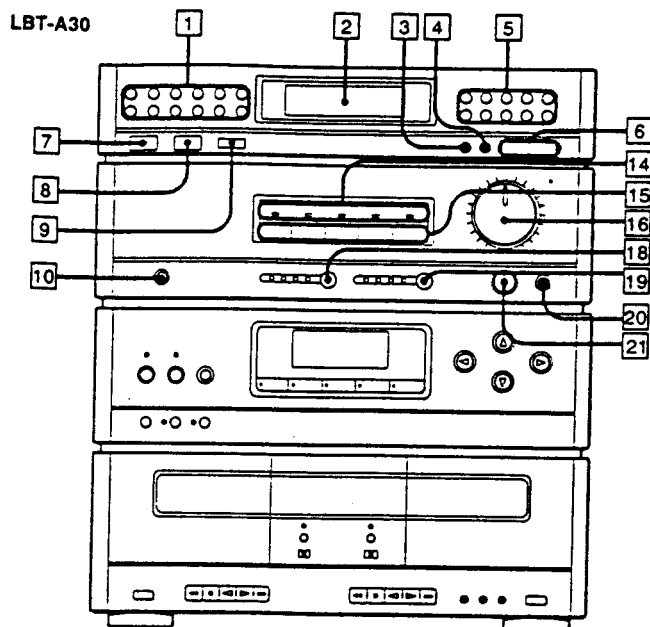
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

SECTION 1 GENERAL

1-1. LOCATION OF CONTROLS



Tuner

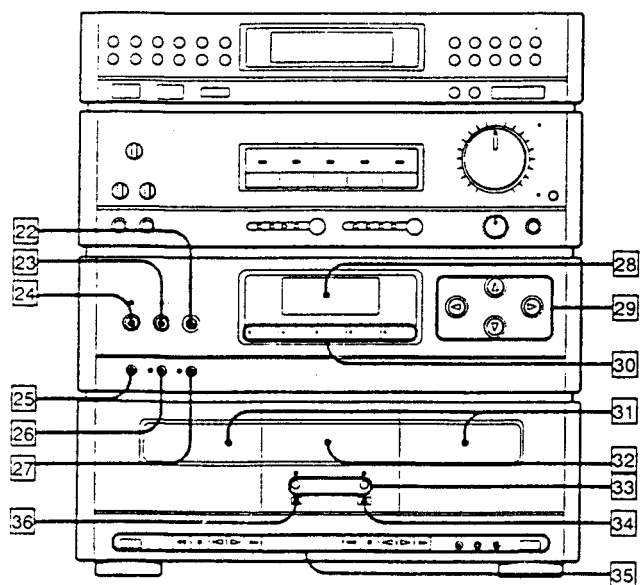
- 1 Buttons for setting the clock and timer (56, 60, 62)
- 2 Display window
- 3 SHIFT button (20)
- 4 BAND SELECT button (18)
- 5 Numeric buttons (20)
- 6 TUNING/TIME/CHARACTER buttons (18, 24, 56, 60)
- 7 POWER button (12)
- 8 Remote sensor
- 9 SLEEP button (58)

Amplifier

- 10 MIC jack (42)*
- 11 ECHO LEVEL control (42)**
- 12 MIC LEVEL controls (MIC1/MIC2) (42)**
- 13 MIC jacks (MIC1/MIC2) (42)**
- 14 FUNCTION INDICATOR
- 15 Function selectors (VIDEO/TAPE/CD/TUNER/PHONO)
- 16 VOLUME control and indicator (14)
- 17 MULTIPLEX button and indicator (44)**
- 18 SURROUND button and indicator (46)
- 19 DBFB (dynamic bass feedback) button and indicator (46)
- 20 HEADPHONES jack
- 21 BALANCE control (14)

* only for LBT-A30 model

** only for LBT-A30K model



Graphic Equalizer

- 22 CLEAR button (46, 52)
- 23 MEMORY button and indicator (54)
- 24 PERSONAL FILE button and indicator (54)
- 25 DISPLAY button (24, 56)
- 26 EFFECT button and indicator (34, 46)
- 27 EQ REC (equalizer recording) button and indicator (34, 48)
- 28 Display window
- 29 CURSOR CONTROL buttons (50)
- 30 Numeric buttons and indicators (48, 54)

Cassette Deck

- 31 Cassette holders
- 32 Operating indicators
- 33 SYNCHRO DUBBING buttons (40)
- 34 DIRECTION MODE selector (26, 28, 32, 38)
- 35 Tape operation buttons
 - ◀◀ Leftward fast winding/AMS*
 - ▶▶ Rightward fast winding/AMS*
 - ▶ Forward play
 - ◀ Reverse play
 - Stop
 - ⏏ EJECT
 - ⏏ PAUSE (deck B only)
 - REC MUTE (record muting) (deck B only)
 - REC (record) (deck B only)
- 36 DOLBY NR (noise reduction) switch (32)

* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2

ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENT

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:

record / playback head	pinch roller
erase head	rubber belts
capstan	idler
- Demagnetize the record / playback head with a head demagnetizer
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g•cm (0.49 to 0.83 oz•inch)
FWD Back tension	CQ-102C	2 to 6g•cm (0.028 to 0.08 oz•inch)
REV	CQ-102RC	35 to 60g•cm (0.49 to 0.83 oz•inch)
REV Back tension	CQ-102RC	2 to 6g•cm (0.028 to 0.08 oz•inch)
FF, REW	CQ-201B	70 to 110g•cm (0.98 to 1.52 oz•inch)

2-2. ELECTRICAL ADJUSTMENT

Note : The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

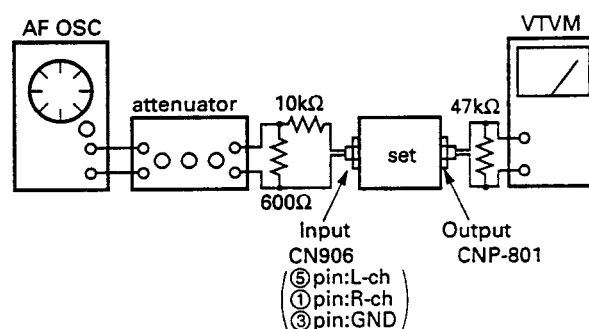
DOLBY NR switch : OFF

DIRECTION MODE switch : ↺

- Standard Record :

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

– Record Mode –



Standard Input Level

input terminal	Input (CN906)
source impedance	10kΩ
input level	0.25V (–10dB)

Standard Output Level

output terminal	Output (CNP-801)
load impedance	47kΩ
output level	0.44V (–5dB)

Test tape

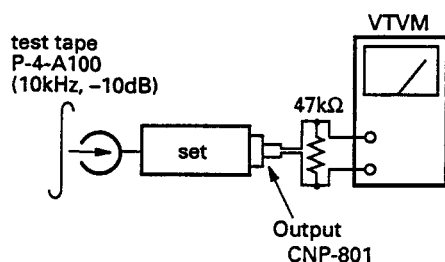
Type	Signal	Used for
P-4-A100	10kHz, –10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record / Playback Head Azimuth Adjustment

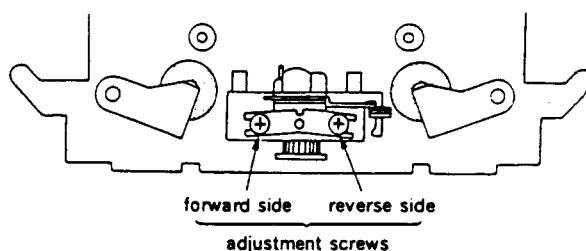
DECK A DECK B

Procedure :

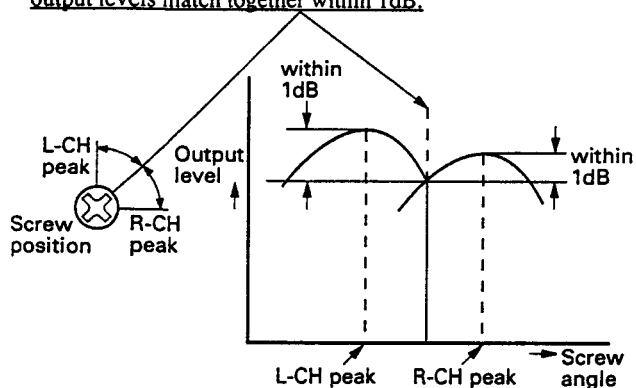
1. Mode : FWD Playback



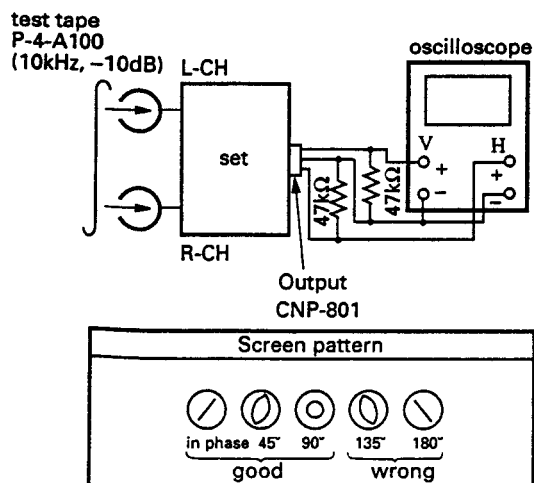
- Azimuth adjustment screw



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



3. Phase Check
Mode : FWD playback



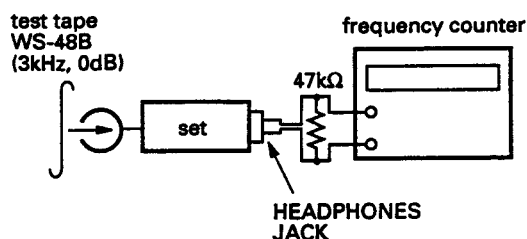
4. Set in the REV mode and repeat the step 1-3.
5. After the adjustment, lock the screws with locking compound.

Tape Speed Adjustment
DECK A
DECK B

Perform high speed adjustment before normal speed adjustment

Procedure :

Mode : FWD playback


(High Speed Adjustment)

1. Short test pin CNP901 on TC SIGNAL board.
2. Set to FWD playback mode.
3. Keep on pressing the HIGH SPEED DUBBING switch.
4. Adjust RV72 so that the frequency counter reading becomes 6,000 $\pm 30\text{Hz}$.
5. After adjustment, disconnect CNP901 shorted in step 1.

(Normal Speed Adjustment)

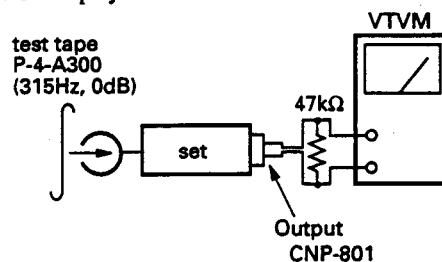
1. Set to FWD playback mode.
2. Adjust RV71 so that the frequency counter reading becomes 3,000 $\pm 15\text{Hz}$.

Frequency difference between deck A and deck B the beginning of the tape should be within 1.0%.

Adjustment Location : AUDIO board (DECK A),
AUDIO board (DECK B)

Playback Level Adjustment
DECK A
DECK B
Procedure :

Mode : FWD playback



Adjust RV11 (L-CH), RV21 (R-CH) so that the reading on VTVM meets the adjustment limits below.

Adjustment Limits :

Output level : $-2.7 \pm 1.5\text{dB}$

Level difference between channels : less than 1.0dB

Confirm that the OUTPUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : AUDIO board (DECK A),
AUDIO board (DECK B)

Record Bias Adjustment

DECK B

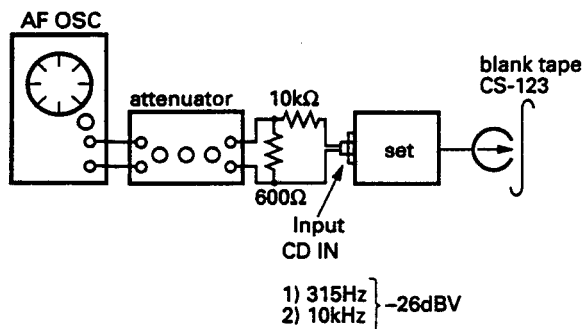
Setting :

REC LEVEL control : Standard Record (See page 4).

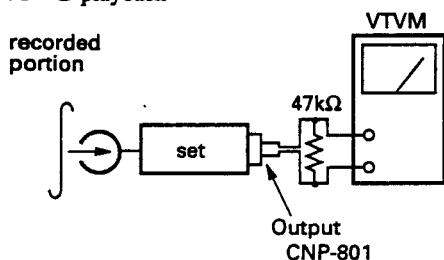
Test pin CNP-901 : Short

Procedure :

1. Mode : record



2. Mode : FWD playback



3. Playback the signal recorded in step 1.

Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

Adjustment Location : AUDIO board (DECK B)

Record Level Adjustment

DECK B

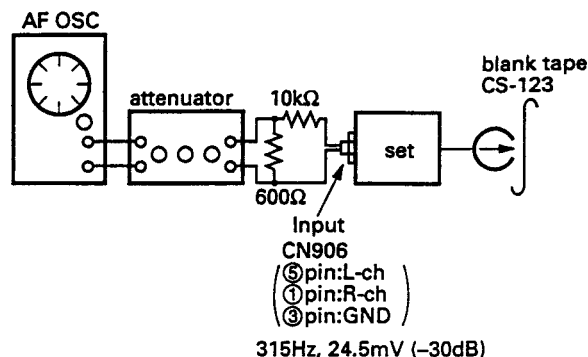
Setting :

REC LEVEL control : Standard Record (See page 4).

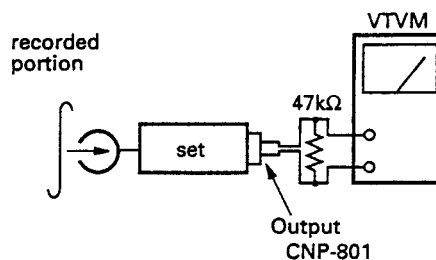
Test pin CNP-901 : Short

Procedure :

1. Mode : record



2. Mode : FWD playback



3. Playback the signal recorded in step 1.

Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the steps given above.

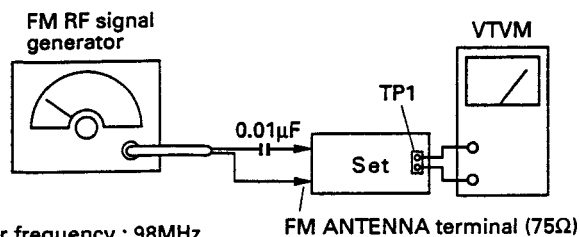
Adjustment Limits : $-22.7\text{dB} \pm 0.5\text{dB}$

Adjustment Location : AUDIO board (DECK B)
MAIN board

TUNER SECTION

As FM FRONT-END FE301 is difficult to repair if faulty, replace it with new one.

FM NULL Adjustment

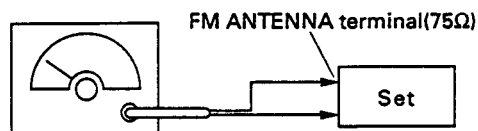


Carrier frequency : 98MHz
Output level : 1mV (60dBµ)
Modulation : 1kHz, 75kHz deviation

Procedure :

1. Tune the set to 98MHz.
2. Adjust T301 for 0V reading on the VTVM.

FM Tuned Level Adjustment

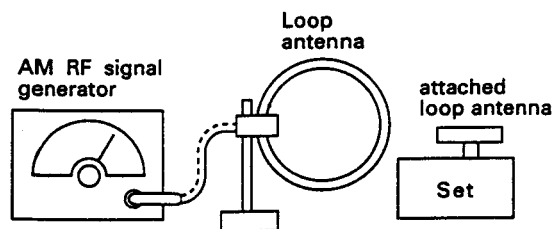


Carrier frequency : 98MHz
Output level : 0.018mV (25dBµ)
Modulation : 1kHz, 75kHz deviation

Procedure :

1. Tune the set to 98MHz.
2. Adjust RV302 to the point where "TUNED" sign on FL601 just turns light.

• AM SECTION



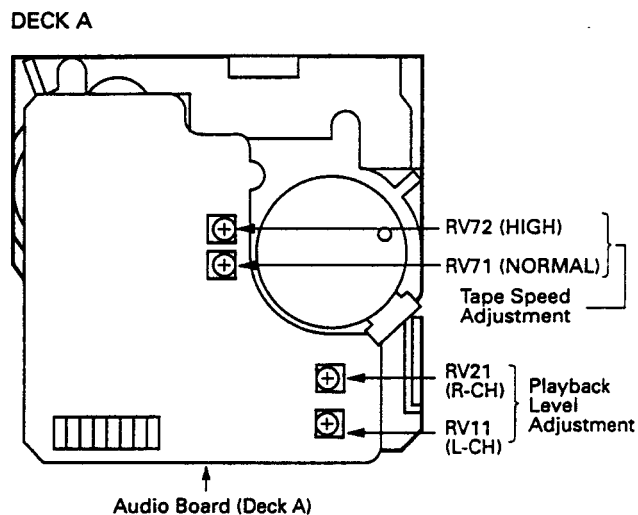
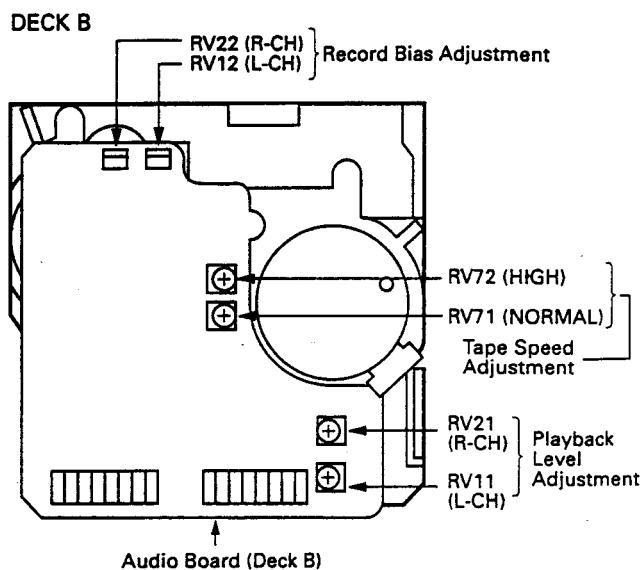
Carrier frequency : 1,050kHz
Modulation : 400Hz, 30% modulation

AM Tuned Level Adjustment

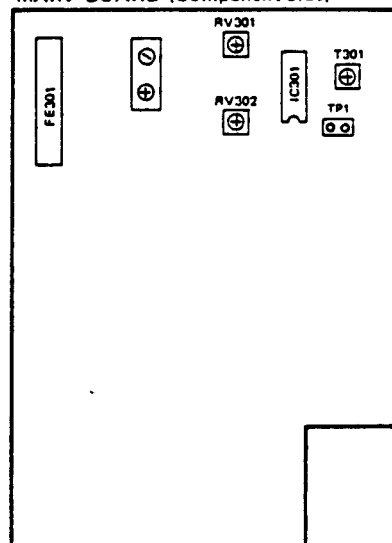
• MW BAND

1. Set loop antenna input level to 0.56mV (78dBµ/m) and no signal tuned light should not on.
2. Adjust RV301 to the point where "TUNED" sign on FL601 just turns light.

Adjustment Location :

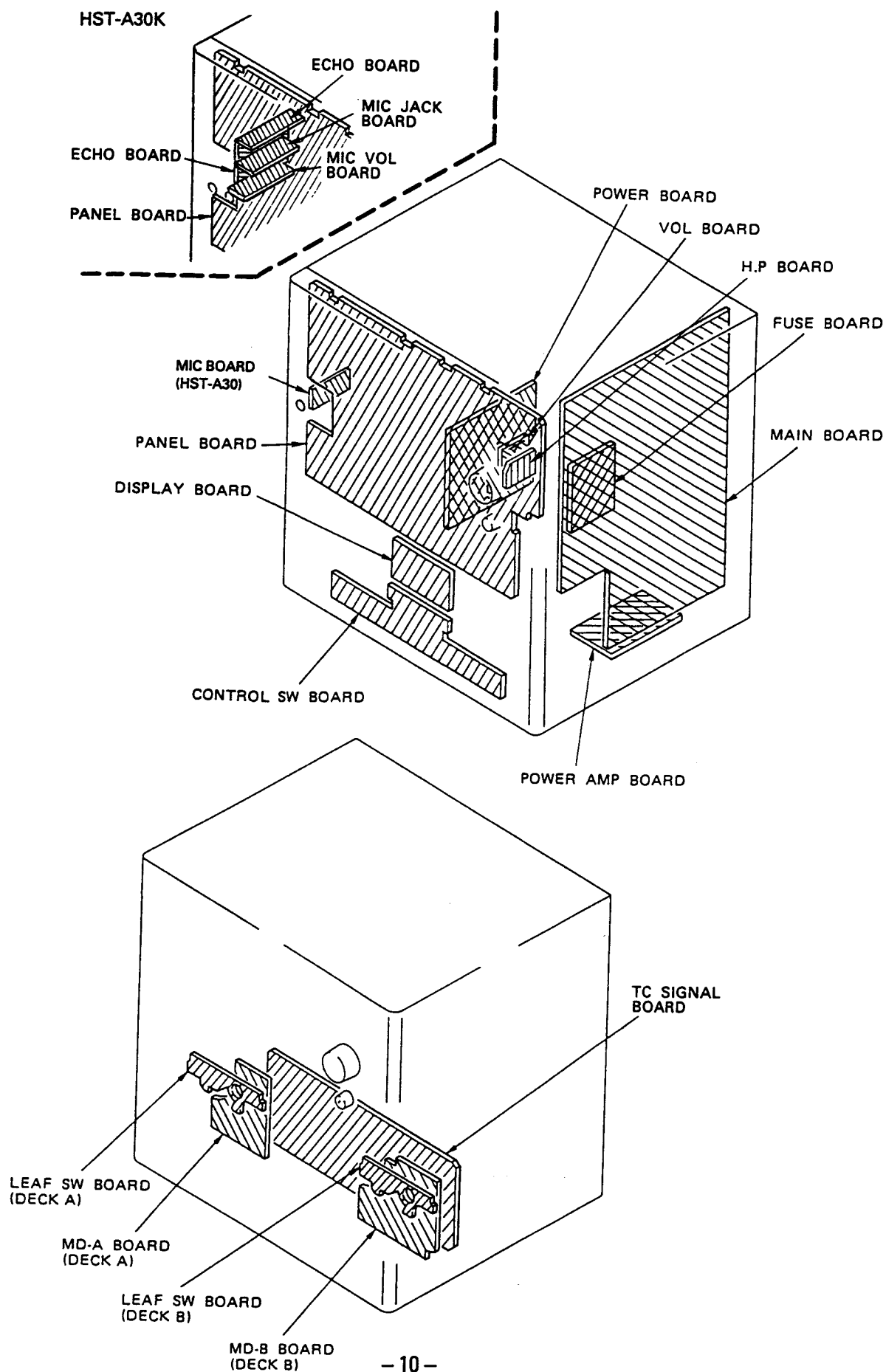


MAIN BOARD (Component Side)

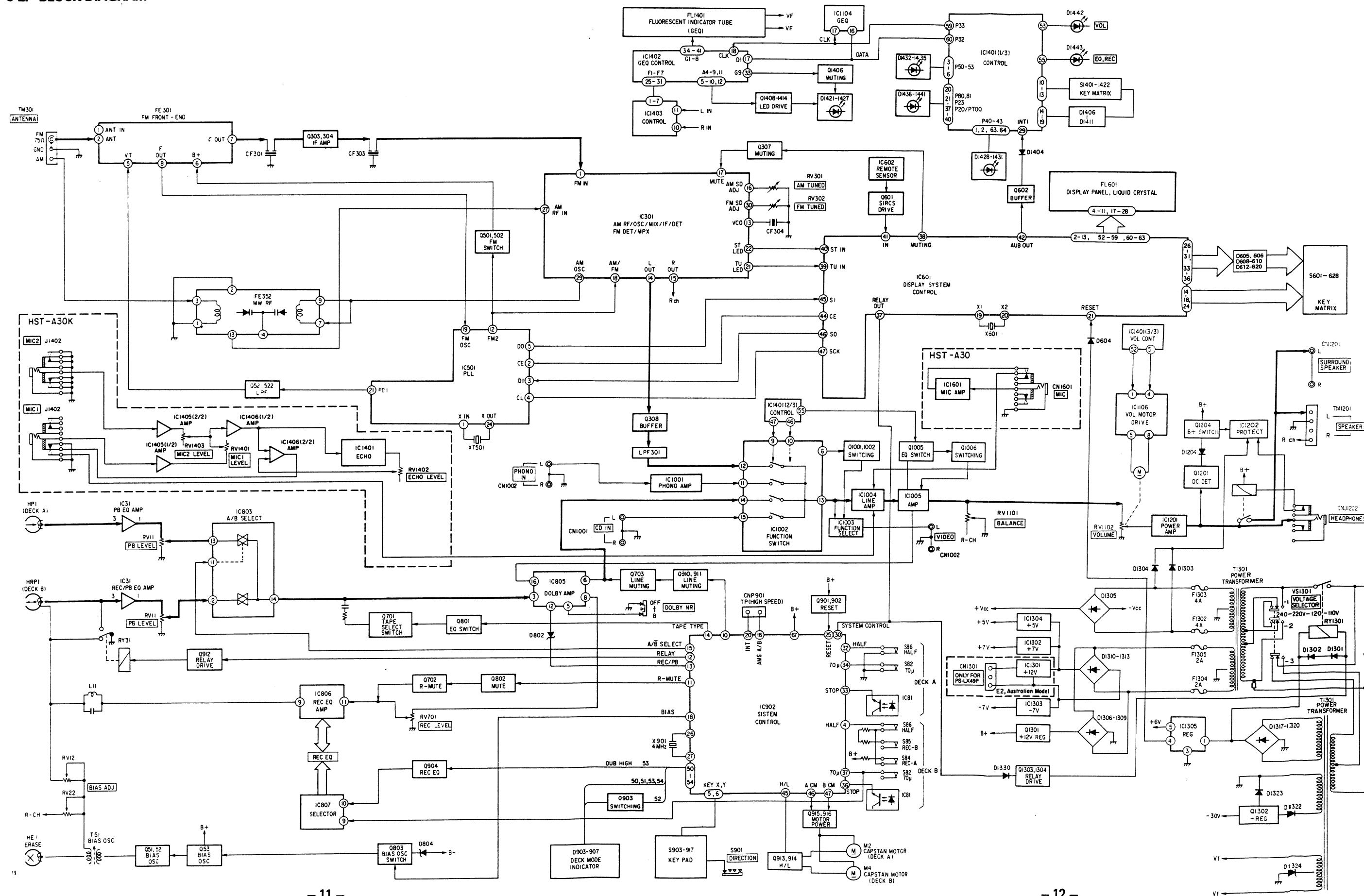


SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

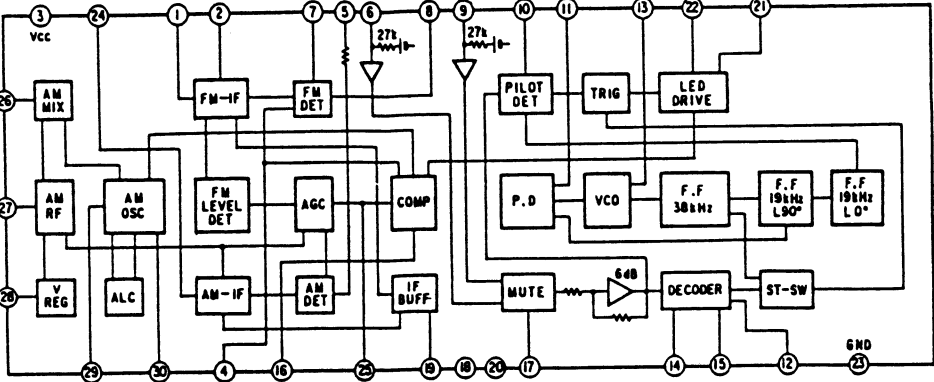


3-2. BLOCK DIAGRAM

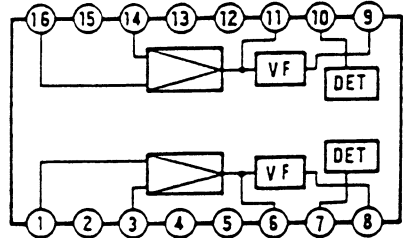


3-3. IC BLOCK DIAGRAMS

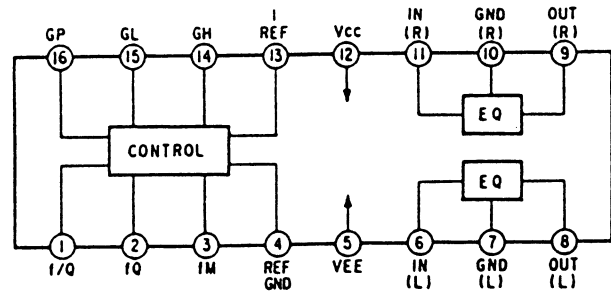
IC301 LA1851N



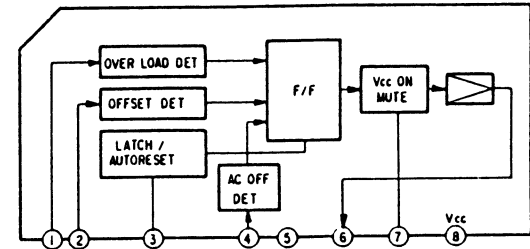
IC805 CXA1100P



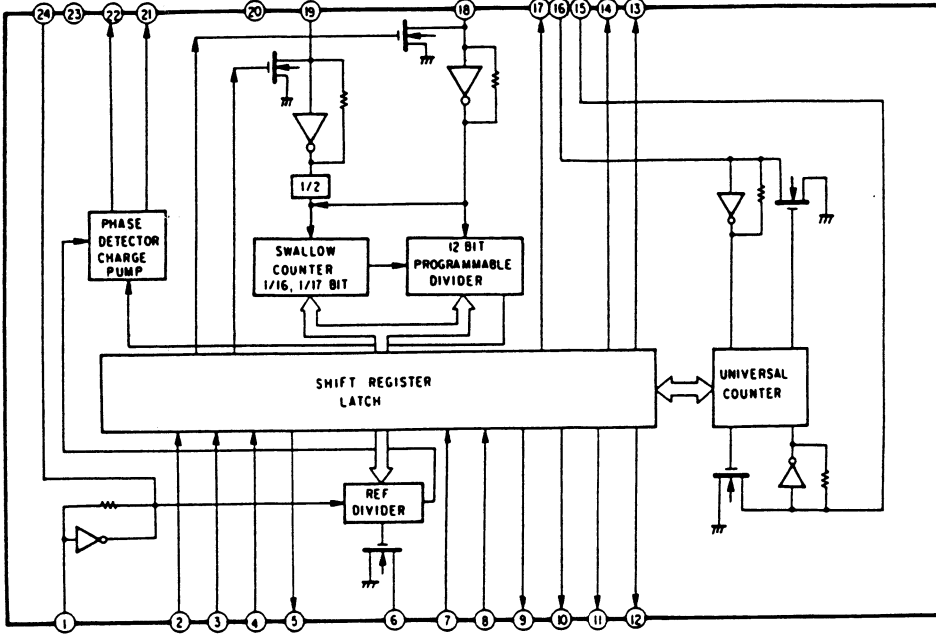
IC806 CXA1198AP



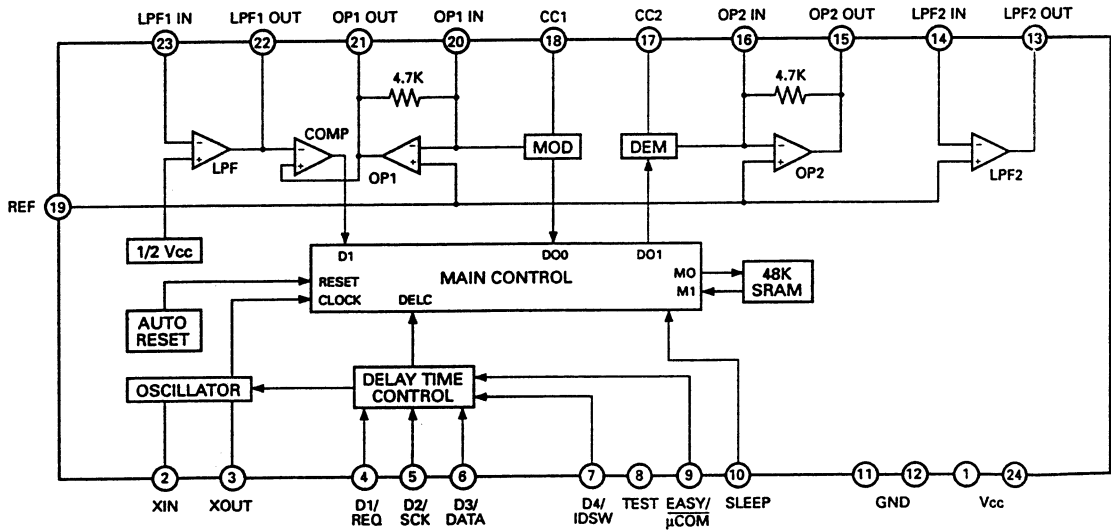
IC1202 μ 1237HA



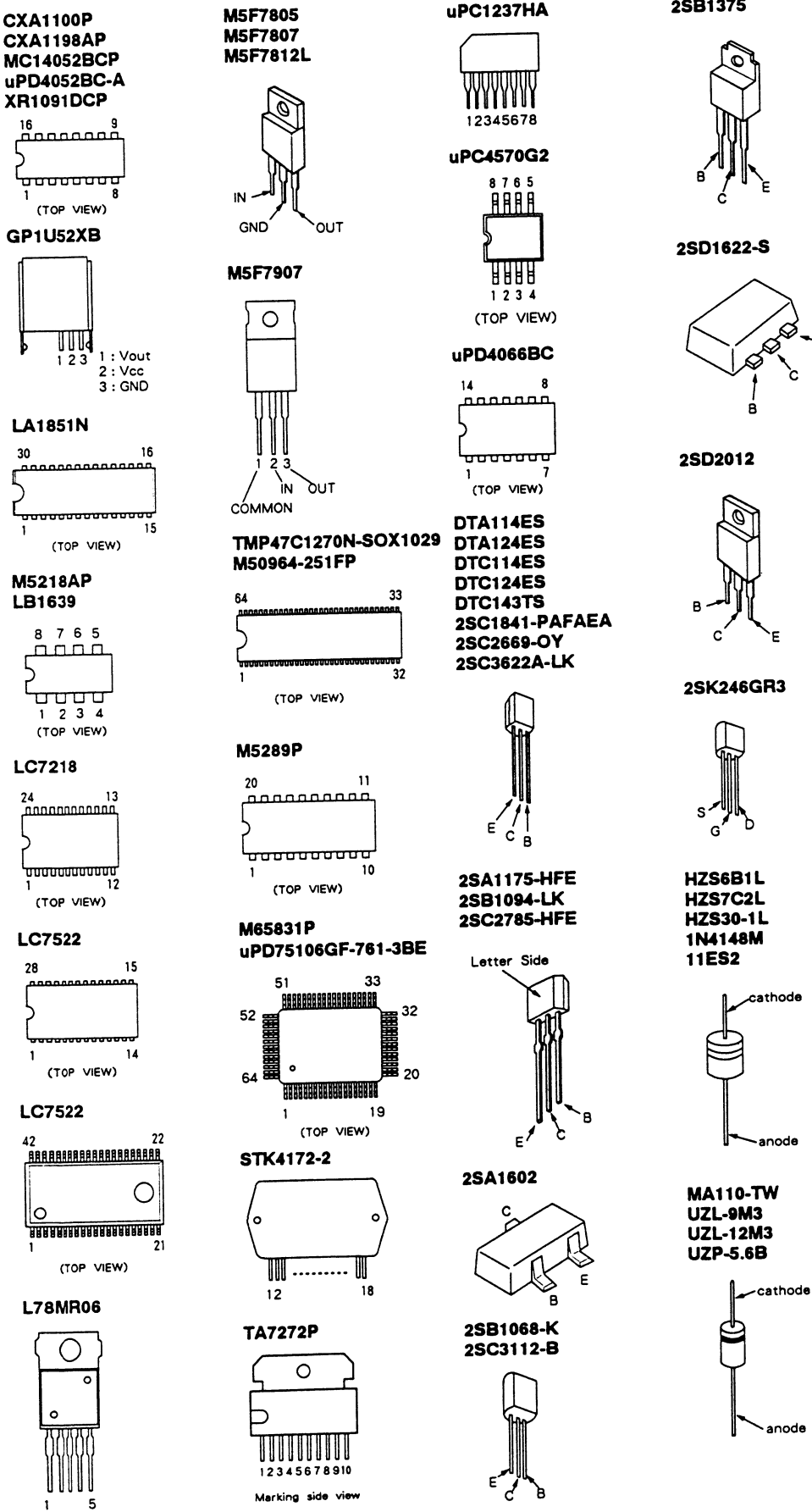
IC501 LC7218



IC1401 M65831P



3-4. SEMICONDUCTOR LEAD LAYOUTS

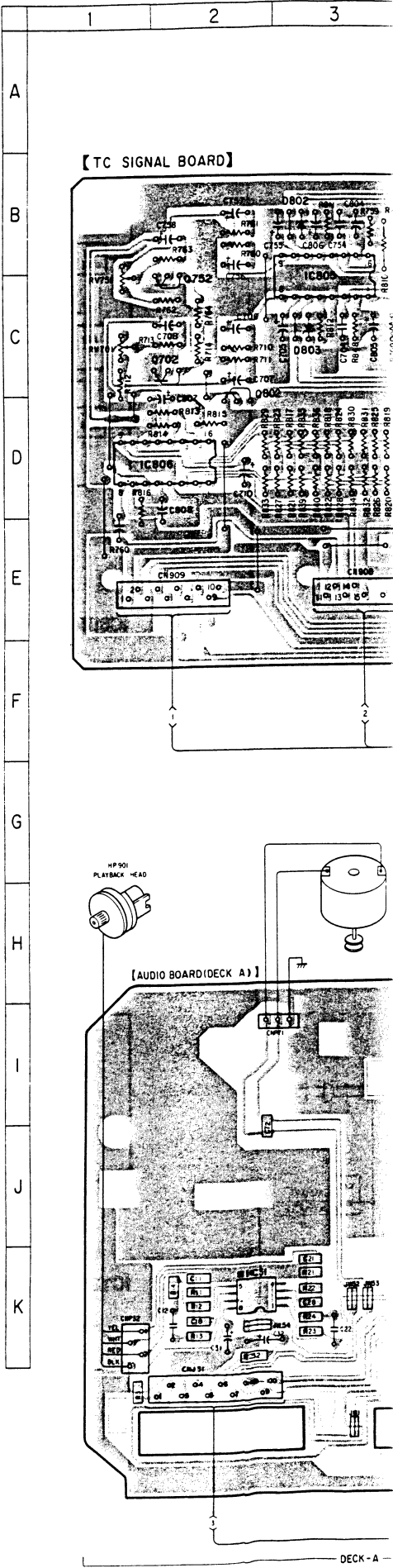


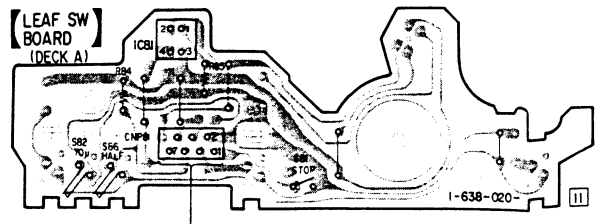
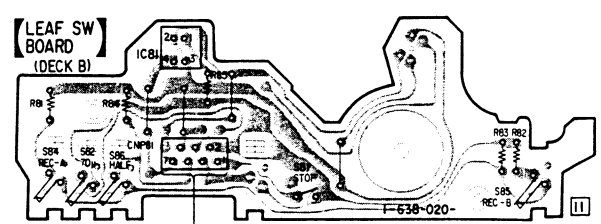
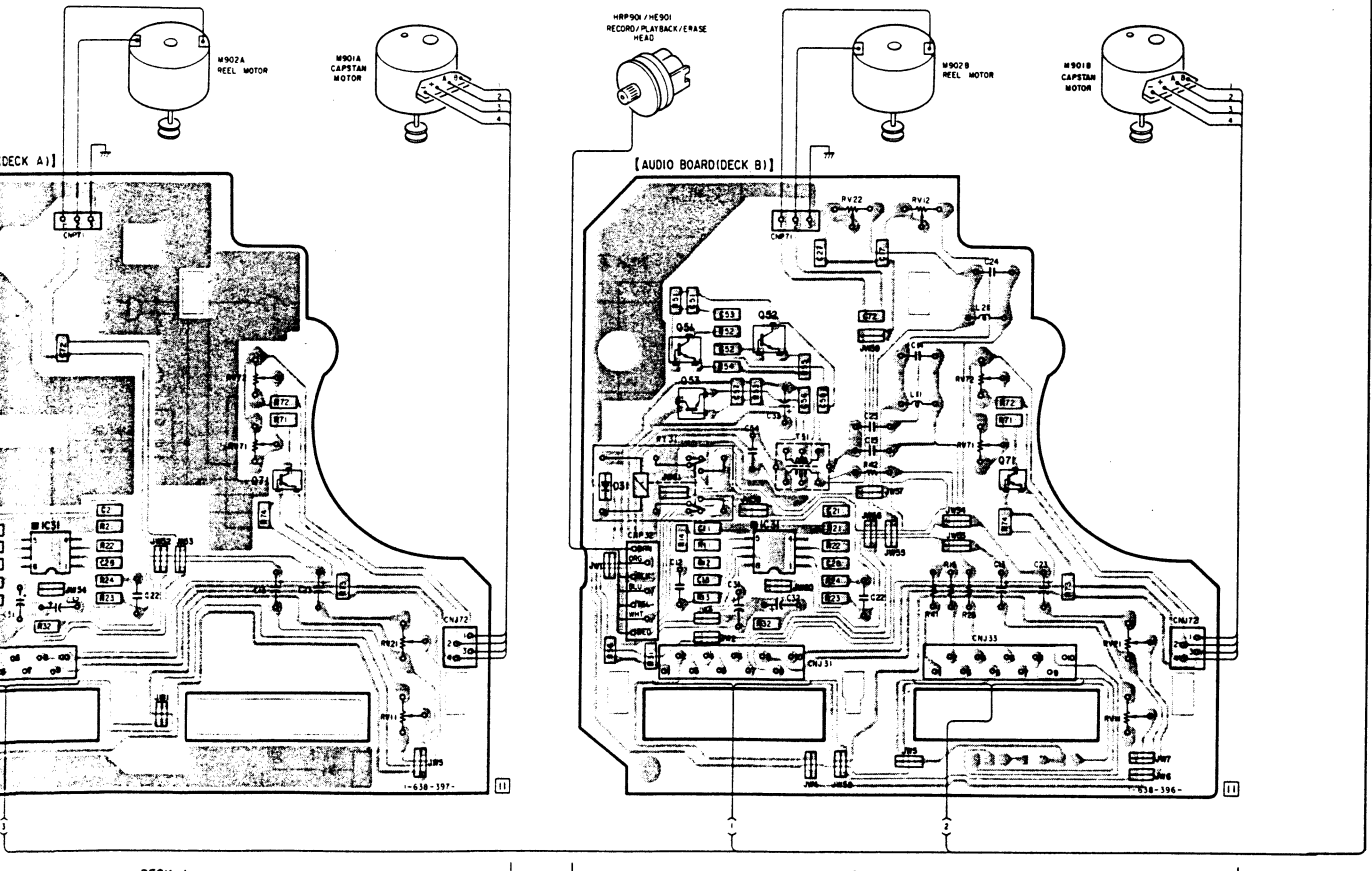
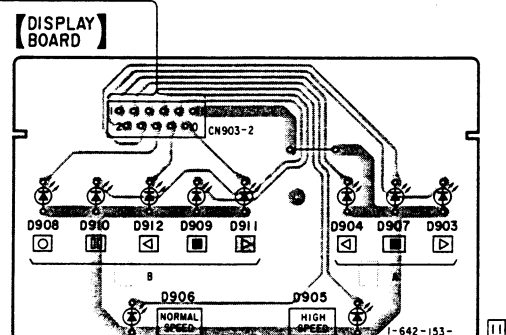
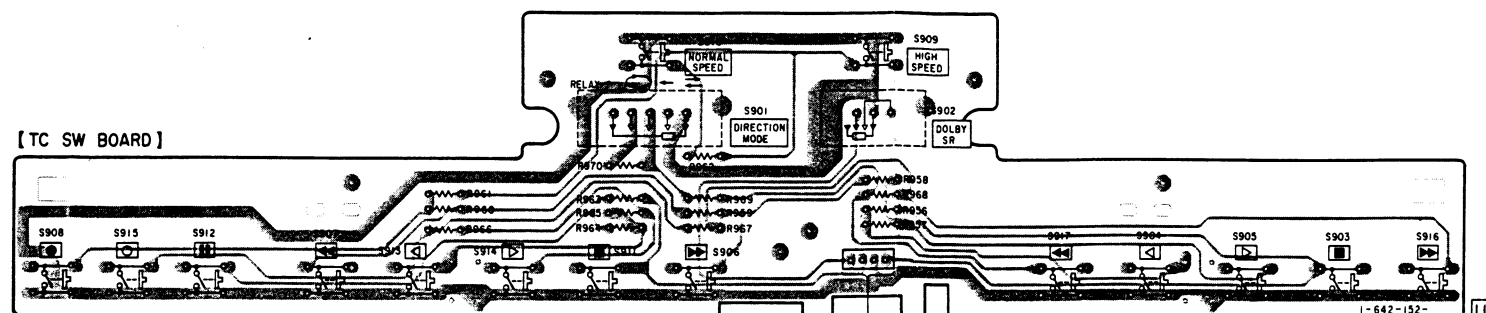
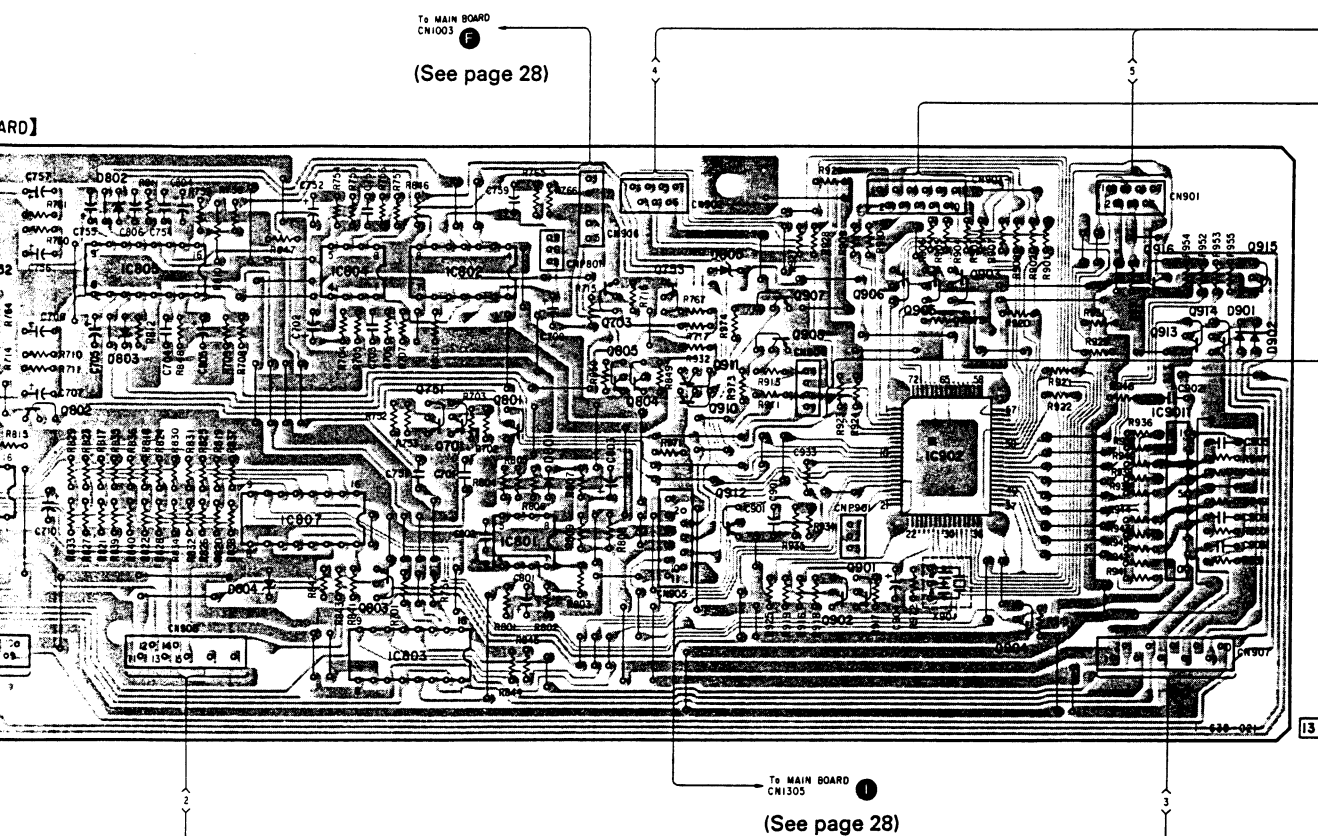
3-5. PRINTED WIRING BOARDS - TC SECTION -

● SEMICONDUCTOR LOCATION

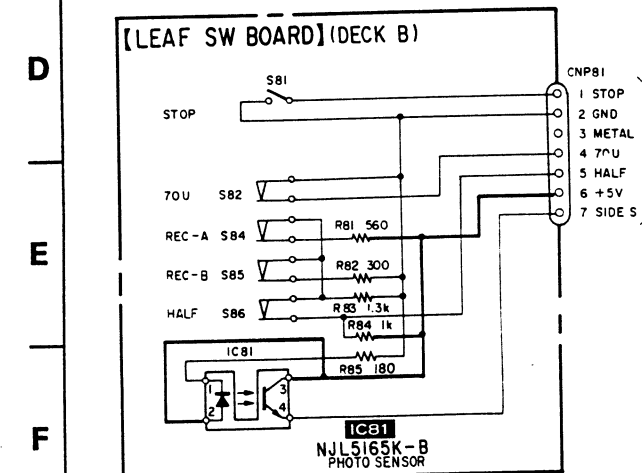
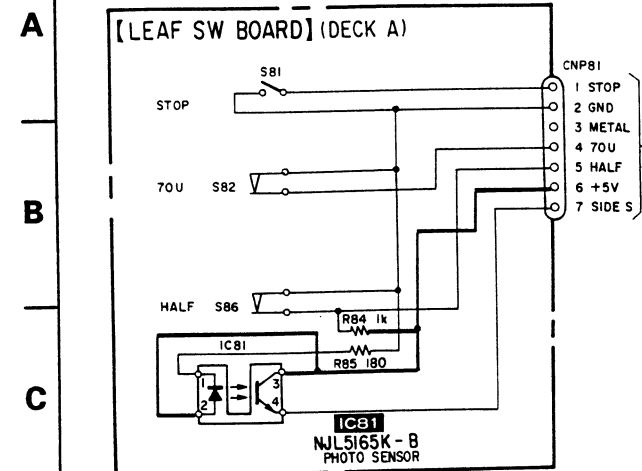
Ref. No.	Location	Ref. No.	Location
D31	J-6	Q51	I-7
D801	D-6	Q52	I-7
D802	B-3	Q53	J-7
D803	C-3	Q71	J-4 (MD-A)
D804	E-4	Q71	J-9 (MD-B)
D901	C-10	Q701	D-5
D902	C-10	Q702	C-2
D903	E-17	Q703	C-6
D904	E-17	Q751	D-5
D905	F-17	Q752	C-2
D906	F-15	Q753	C-6
D907	E-17	Q801	D-5
D908	E-15	Q802	C-2
D909	E-16	Q803	E-4
D910	E-15	Q901	E-8
D911	E-16	Q902	E-8
D912	E-15	Q903	C-8
		Q904	E-9
		Q905	C-8
		Q906	C-8
IC31	K-2 (MD-A)	Q907	C-7
IC31	K-7 (MD-B)	Q908	C-7
IC81	K-16 (DECK A)	Q910	C-7
IC81	H-16 (DECK B)	Q911	C-7
IC801	D-5	Q912	D-7
IC803	E-5	Q913	C-10
IC805	C-3	Q914	C-10
IC806	D-2	Q915	C-10
IC807	D-4	Q916	C-10
IC901	D-10		
IC902	D-8		

Note:
○ : Indicated a lead wire mounted on the component side
■ : Parts mounted on the conductor side
▨ : Pattern from the side which enables seeing





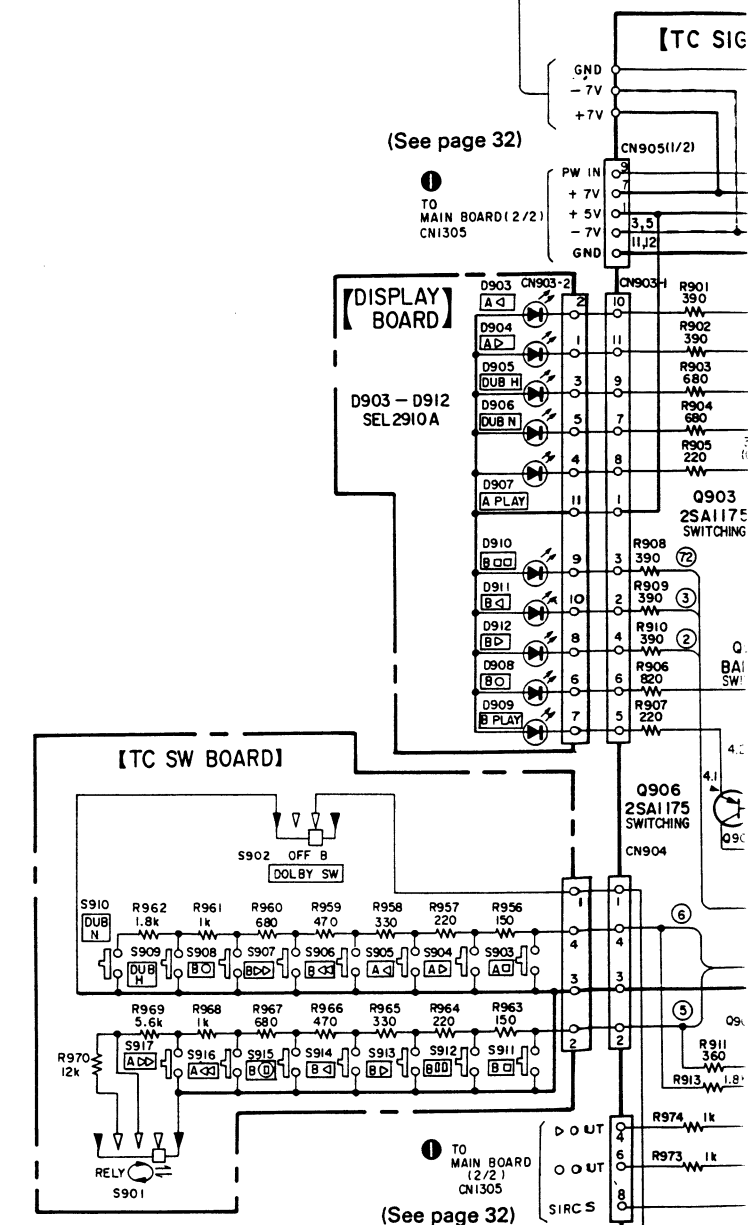
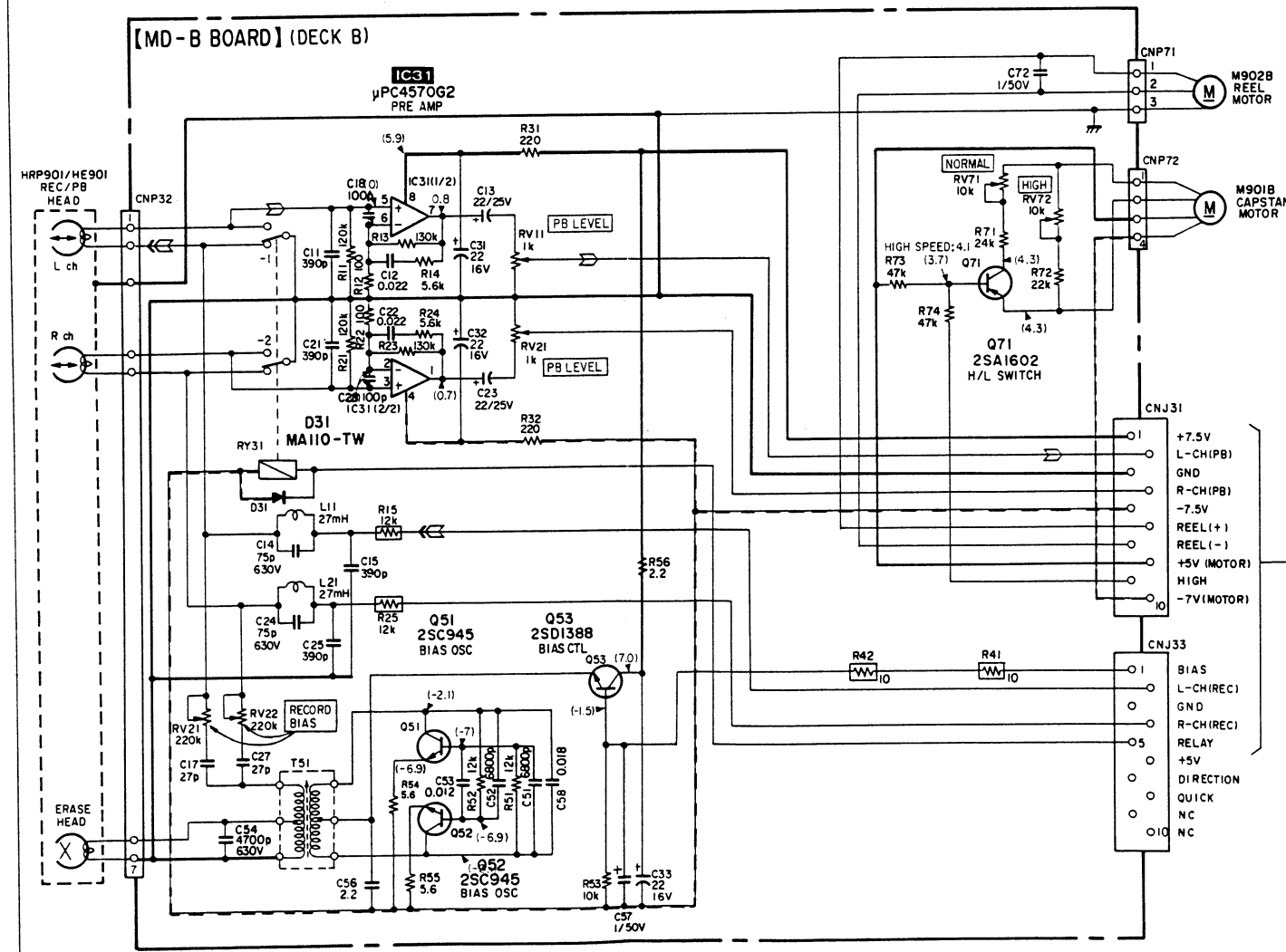
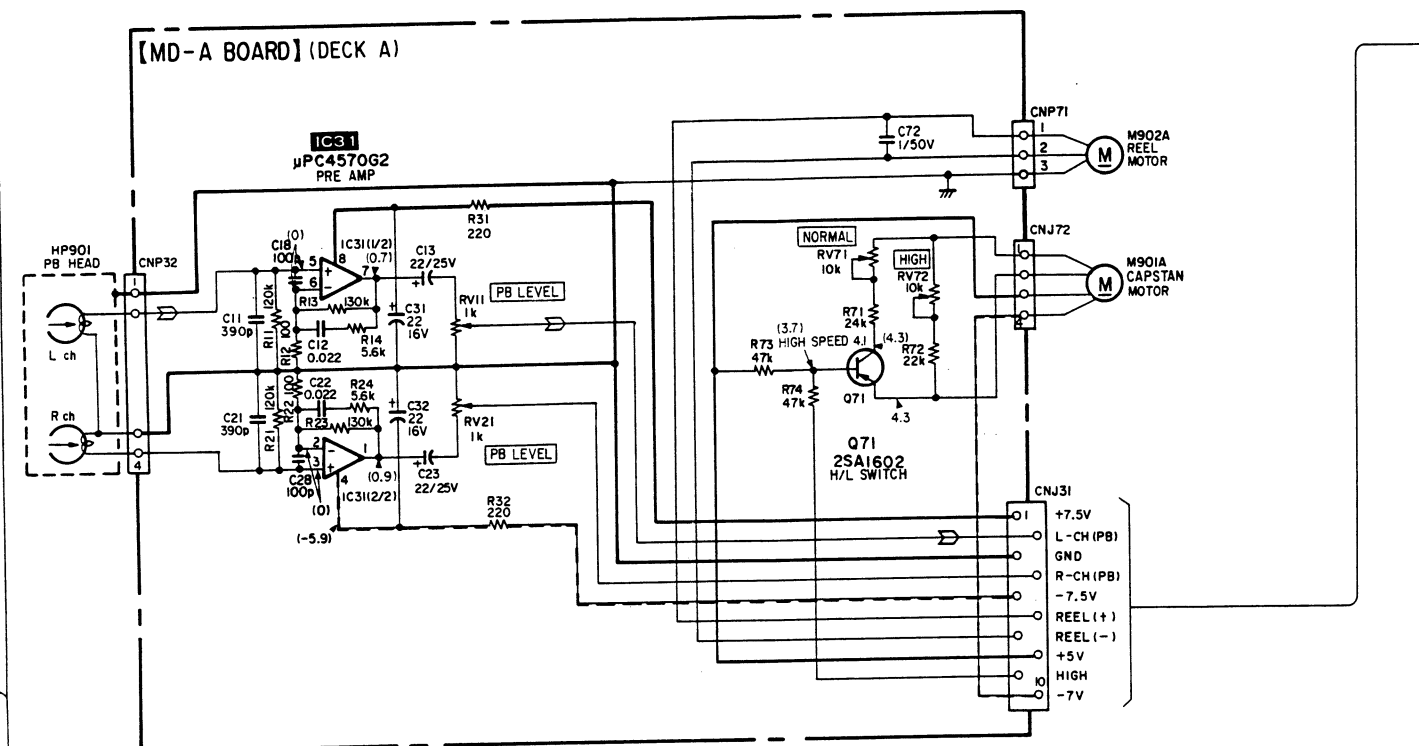
3-6. SCHEMATIC DIAGRAM - TC SECTION -



- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF 50V or less are not indicated except for electrolytics and tantalums.
 - All resistors are in ohms, 1/4W or less unless otherwise noted.
 - \square : Nonflammable resistor
 - \triangle : Internal component

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

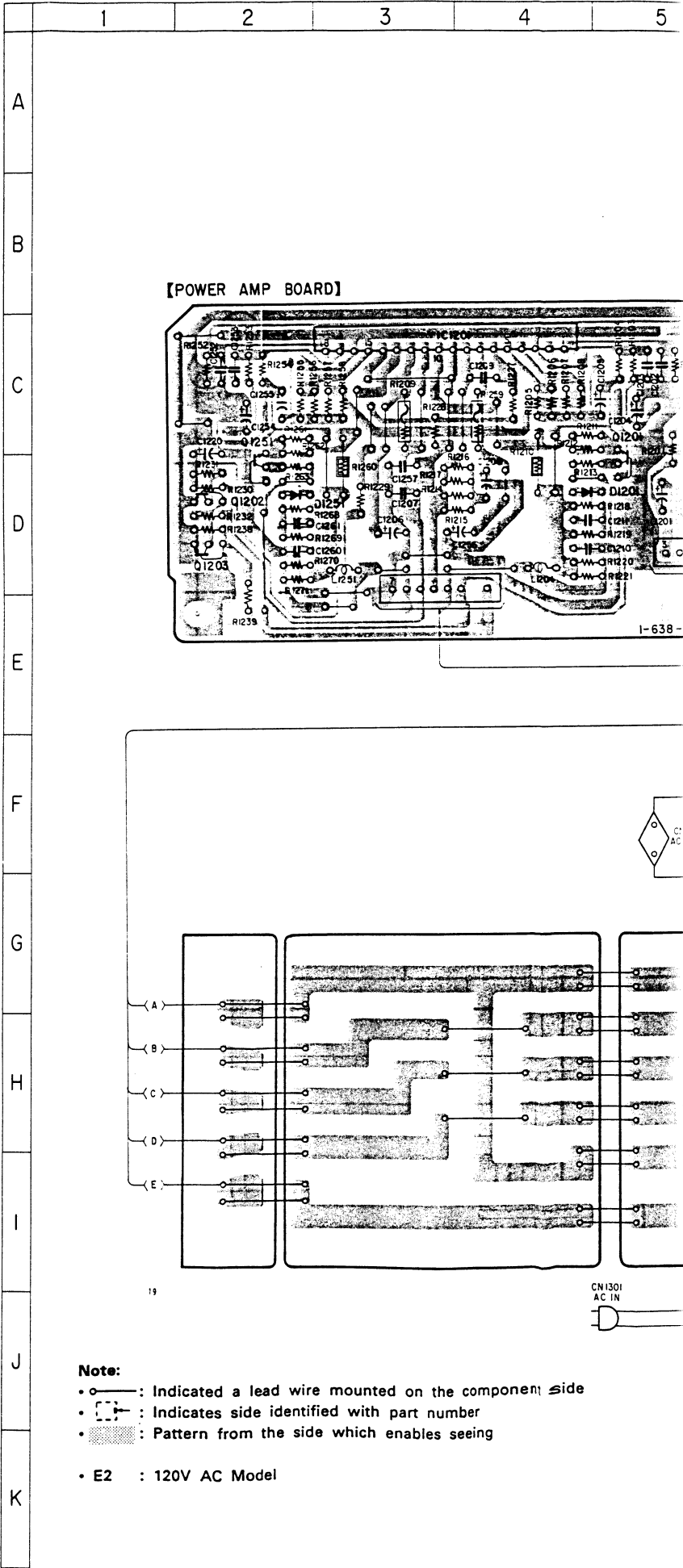
- : B+ Line
- - -: B- Line
- \square : Adjustment for repair
- Voltage are dc with respect to ground under no-signal (STOP) conditions.
- No mark: STOP, FM
- () : PB
- Voltagcs are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path
- \square : PB
- \square : REC

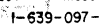
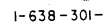


3-7. PRINTED WIRING BOARDS - MAIN SECTION -

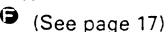
● SEMICONDUCTOR LOCATION

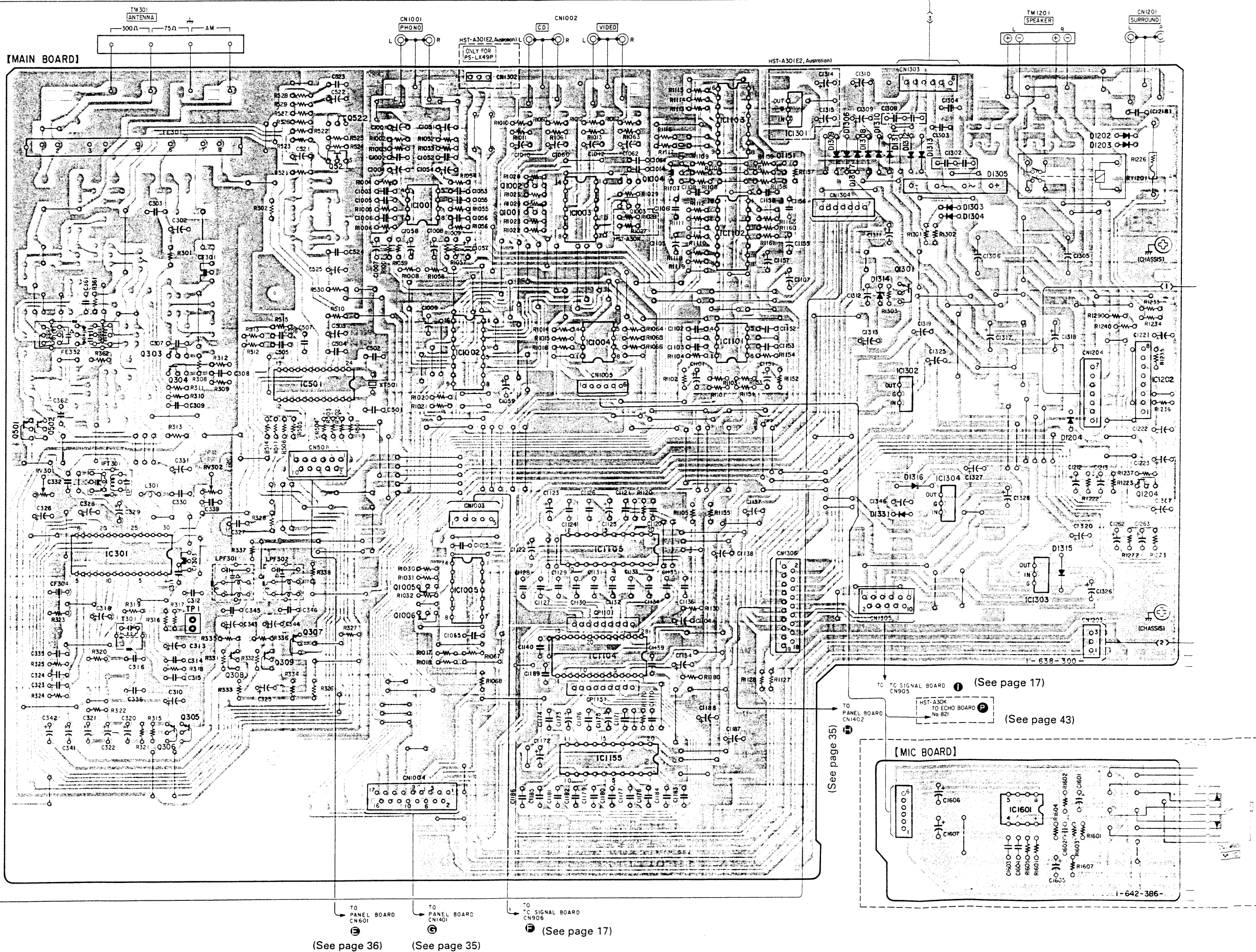
Ref. No.	Location	Ref. No.	Location
D351	E-12	IC1202	E-24
D1201	D-5	IC1301	B-20
D1202	B-24	IC1302	E-22
D1203	B-24	IC1303	G-23
D1204	E-23	IC1304	F-22
D1251	D-2	IC1305	J-8
D1301	I-8	IC1601	J-23
D1302	I-8		
D1303	C-22	Q301	D-13
D1304	C-22	Q302	D-13
		Q303	E-13
D1305	C-22	Q304	E-13
D1306	B-21	Q305	I-13
D1307	B-21		
D1308	B-21	Q306	I-13
D1309	B-21	Q307	H-15
		Q308	H-14
D1310	B-21	Q309	H-14
D1311	B-21	Q351	D-12
D1312	B-22		
D1313	B-22	Q352	D-13
D1314	D-21	Q353	D-13
		Q354	E-13
D1315	G-23	Q355	E-12
D1316	F-22	Q356	E-13
D1317	J-9		
D1318	J-9	Q501	E-12
D1319	J-9	Q502	E-12
		Q521	B-15
D1320	J-9	Q522	B-15
D1321	J-7	Q531	C-15
D1322	J-10		
D1323	J-8	Q532	C-15
D1324	I-8	Q1001	C-17
		Q1002	C-17
D1330	J-6	Q1003	C-18
D1331	F-21	Q1004	C-18
IC301	G-13	Q1005	G-16
IC501	E-15	Q1006	H-16
IC1001	C-16	Q1101	C-19
IC1002	E-17	Q1151	C-20
IC1003	C-18	Q1201	D-5
IC1004	E-18	Q1202	D-2
IC1005	G-17	Q1203	D-2
IC1101	D-20	Q1204	F-24
IC1102	C-20	Q1251	D-2
IC1103	B-20	Q1301	D-21
IC1104	H-18	Q1302	J-8
IC1105	G-18	Q1303	I-6
IC1155	I-18	Q1304	I-6
IC1201	C-3		





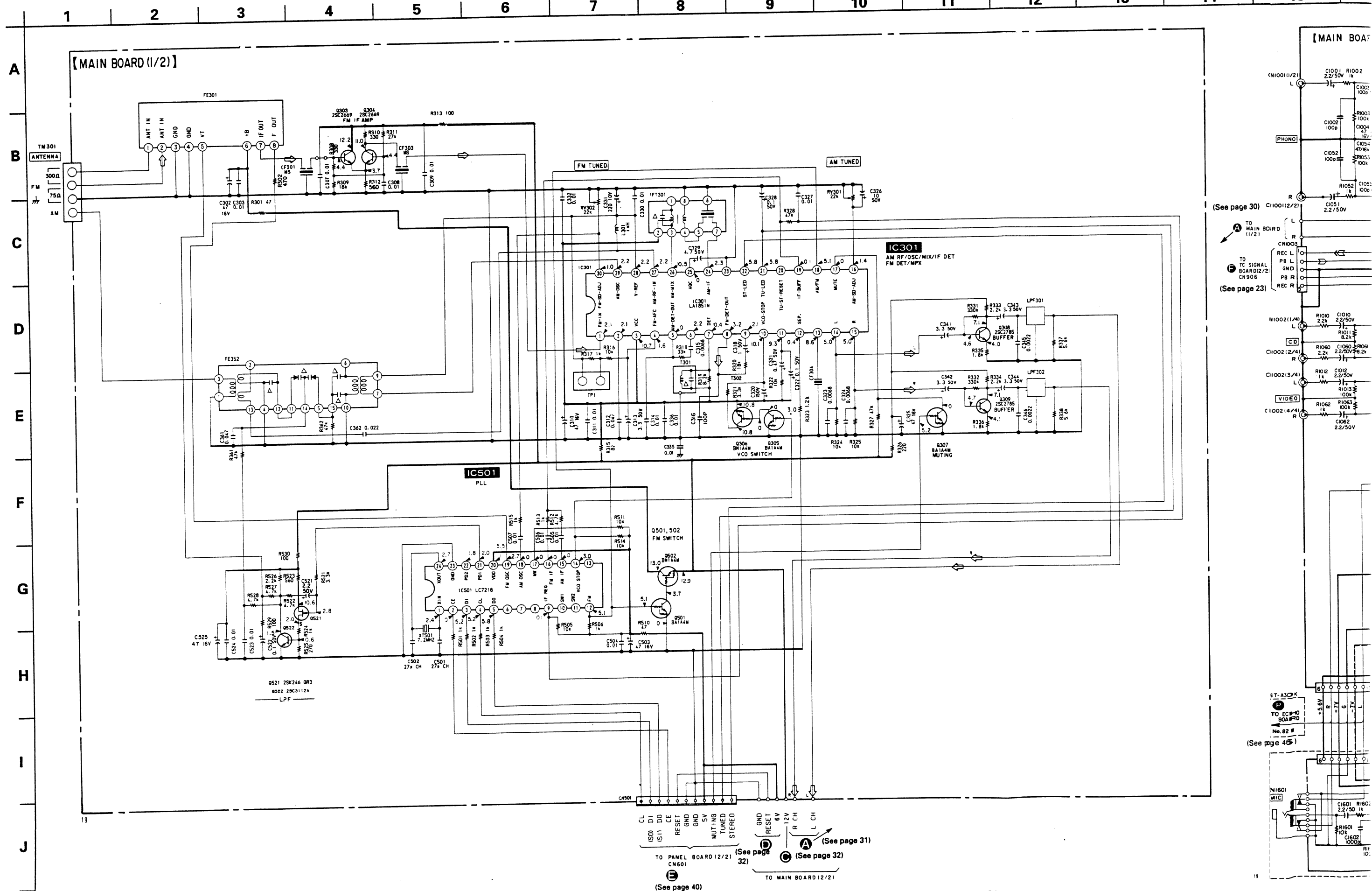
20V AC Model





3-8. SCHEMATIC DIAGRAM - MAIN SECTION -

• See page 38 for note.



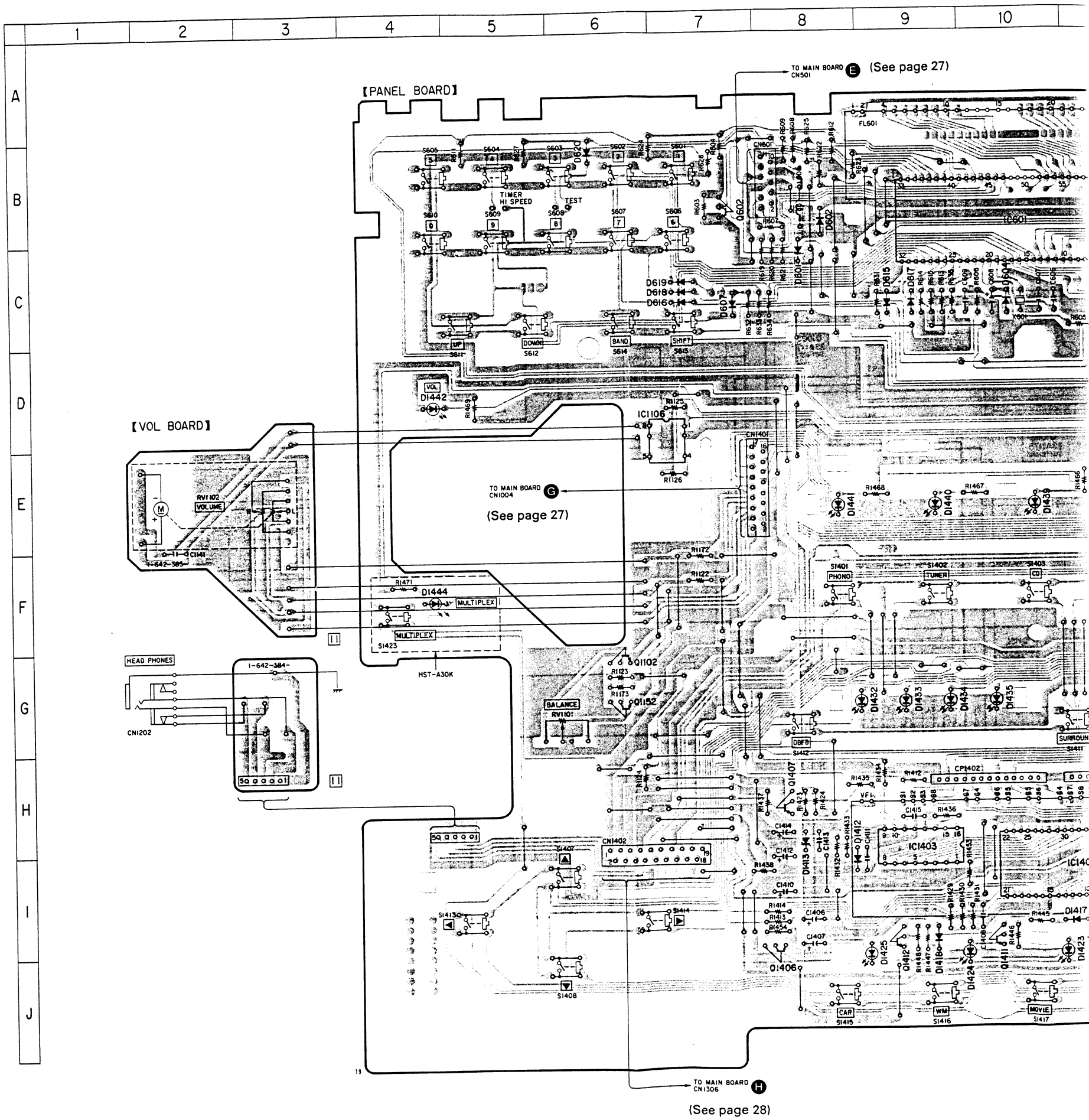


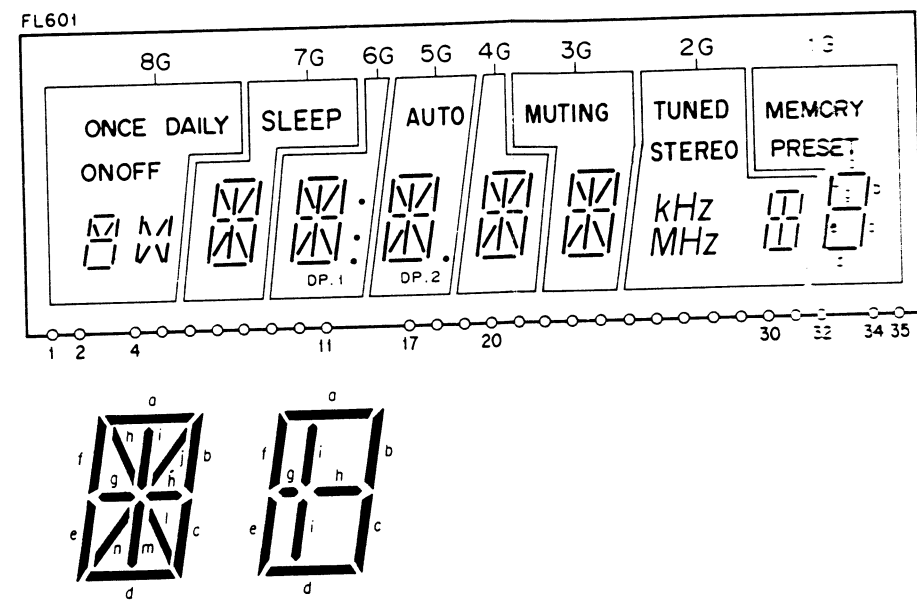
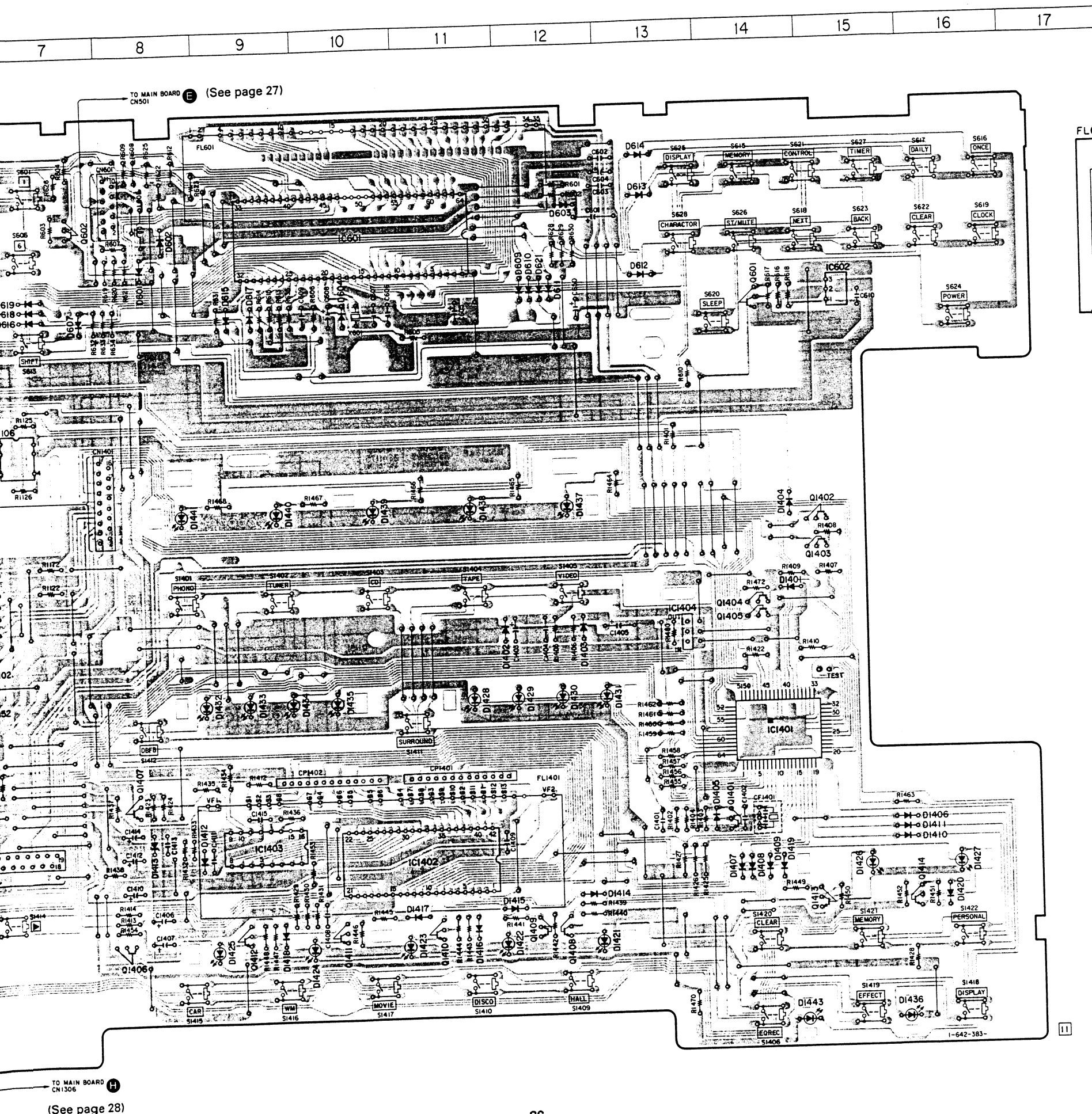


3-9. PRINTED WIRING BOARDS - PANEL SECTION -

● SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D601	C-8	D1427	I-16
D602	B-8	D1428	G-11
D603	B-12	D1429	G-12
D604	C-10	D1430	G-12
D607	C-7		
		D1431	G-12
D609	C-12	D1432	G-8
D610	C-12	D1433	G-9
D611	C-12	D1434	G-9
D612	C-13	D1435	G-10
D613			
	B-13	D1436	J-15
D614	B-13	D1437	E-12
D615	C-9	D1438	E-11
D616	C-7	D1439	E-10
D617	C-9	D1440	E-9
D618			
	C-7	D1441	E-8
D619	C-7	D1442	D-4
D620	B-6	D1443	J-14
D621	C-12	D1444	F-4 (A30K)
D1401	F-14		
D1402		IC601	B-10
	F-11	IC602	C-15
D1403	F-12	IC1106	D-7
D1404	E-14	IC1401	G-14
D1405	H-14	IC1402	I-11
D1406	H-16		
D1407		IC1403	H-9
	I-14	IC1404	F-13
D1408	I-14		
D1409	I-14	Q601	C-14
D1410	I-16	Q602	B-7
D1411	H-16	Q1102	G-6
D1412		Q1152	G-6
	I-8	Q1401	H-14
D1413	H-8		
D1414	I-12	Q1402	E-15
D1415	I-11	Q1403	F-15
D1416	I-11	Q1404	F-14
D1417		Q1405	F-14
	I-11	Q1406	I-8
D1418	I-9		
D1419	I-14	Q1407	H-8
D1420	I-16	Q1408	I-12
D1421	I-12	Q1409	I-12
D1422		Q1410	I-11
	I-11	Q1411	I-10
D1423	I-10		
D1424	I-10	Q1412	I-9
D1425	I-9	Q1413	I-15
D1426	I-15	Q1414	I-16





Note:

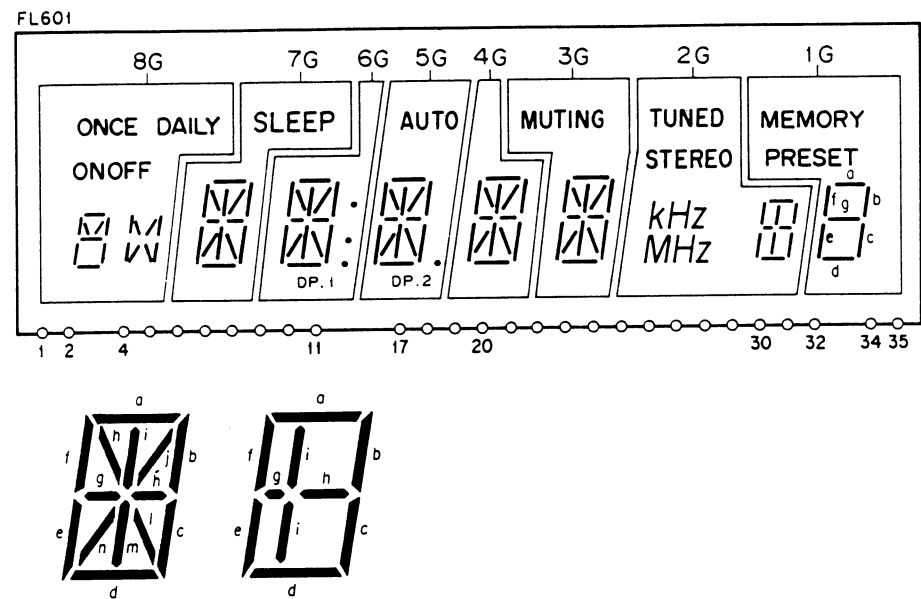
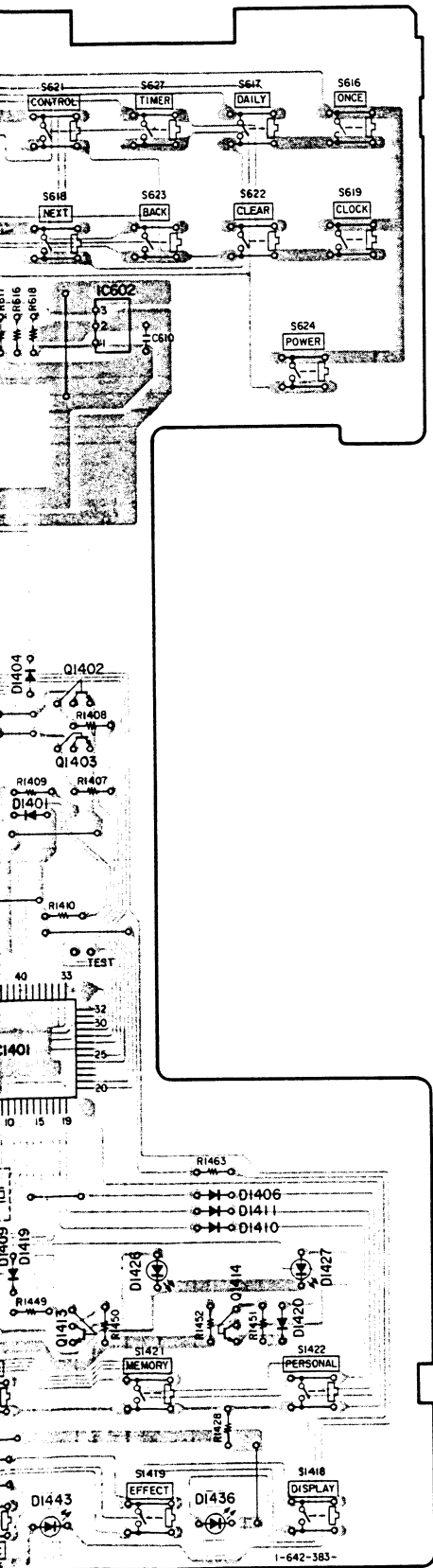
- All capacitors are or less are not inc
- All resistors are in
- Δ : Internal con

The components ident dotted line with mark safety. Replace only with par

- — : B+ Line
- - - - : B- Line
- Voltage are dc wi conditions.
- No mark : STOP
- Voltages are take Voltage variation tolerances.
- Signal path \Rightarrow : FM

Note:

- \circ — : Indicated a lead wire mounted on the component side
- \blacksquare : Parts mounted on the conductor side
- \dots : Pattern from the side which enables seeing



- Note:**
- : Indicated a lead wire mounted on the component side
 - : Parts mounted on the conductor side
 - ▨ : Pattern from the side which enables seeing

Note:

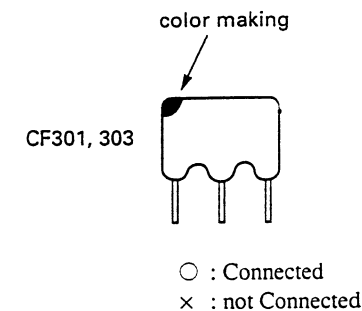
- All capacitors are in μF unless otherwise noted. pF: μF 50VV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- Δ : Internal component

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

- : B + Line
- - - : B - Line
- Voltage are dc with respect to ground under no-signal (STOP) conditions.
- No mark : STOP, FM
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path
⇒ : FM

Note on Ceramic Filter Replacement.

This set employs two or three ceramic filters (CF301 – CF303) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by jumpers (*A, *B) is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.

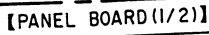


Ceramic filter		Mount		FM intermediate (MHz)
Color mark	Center frequency (MHz)	IF-50K *B	IF+50K *A	
white	10.750	×	○	10.750
Red	10.700	×	×	10.700
Black	10.650	○	×	10.350

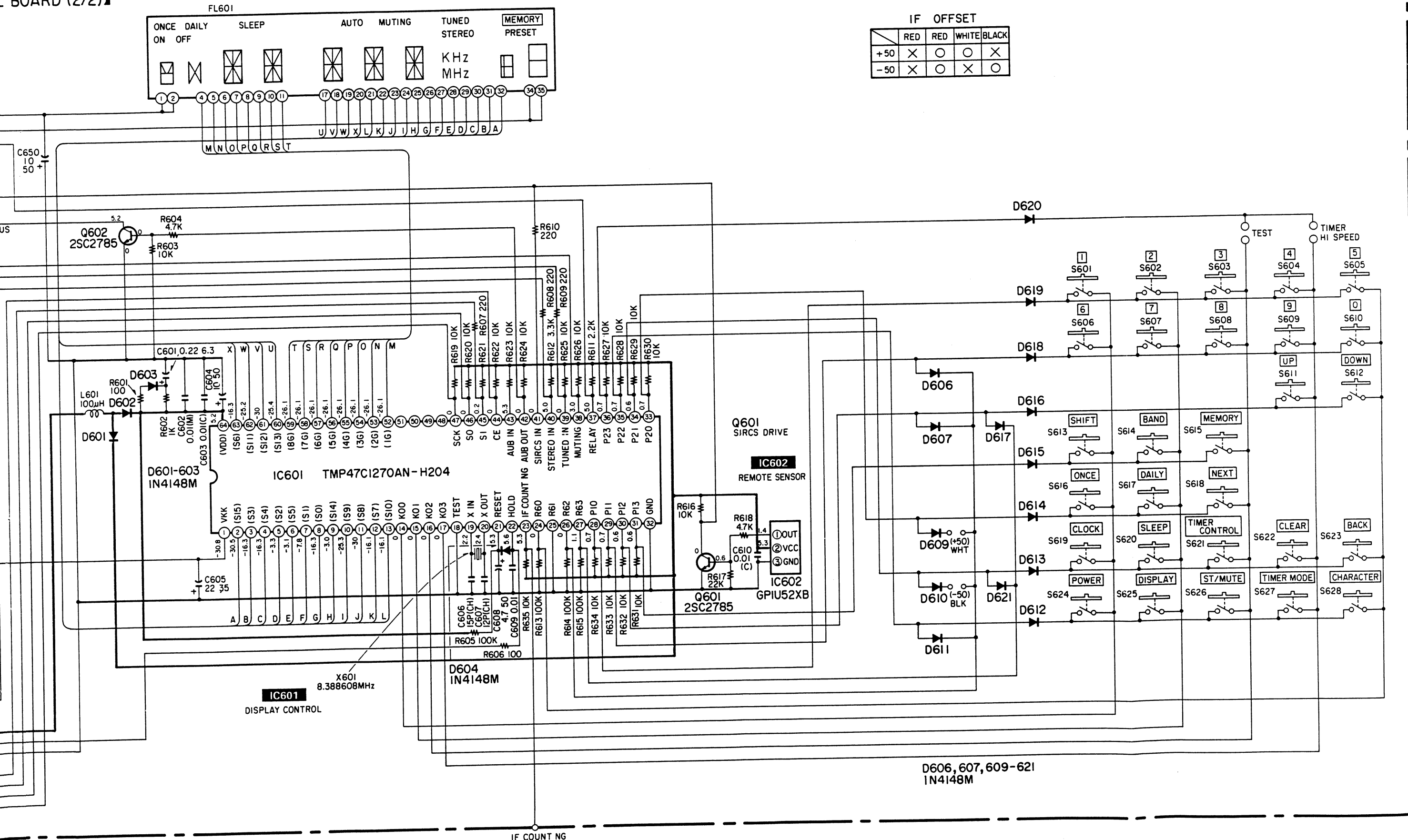
FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i. e. of same color coding, should be used for CF301 – CF303.

When replacing the ceramic filters, perform the FM Di-scriminator Adjustment.

3-10. SCHEMATIC DIAGRAM - PANEL SECTION -



BOARD (2/2)】



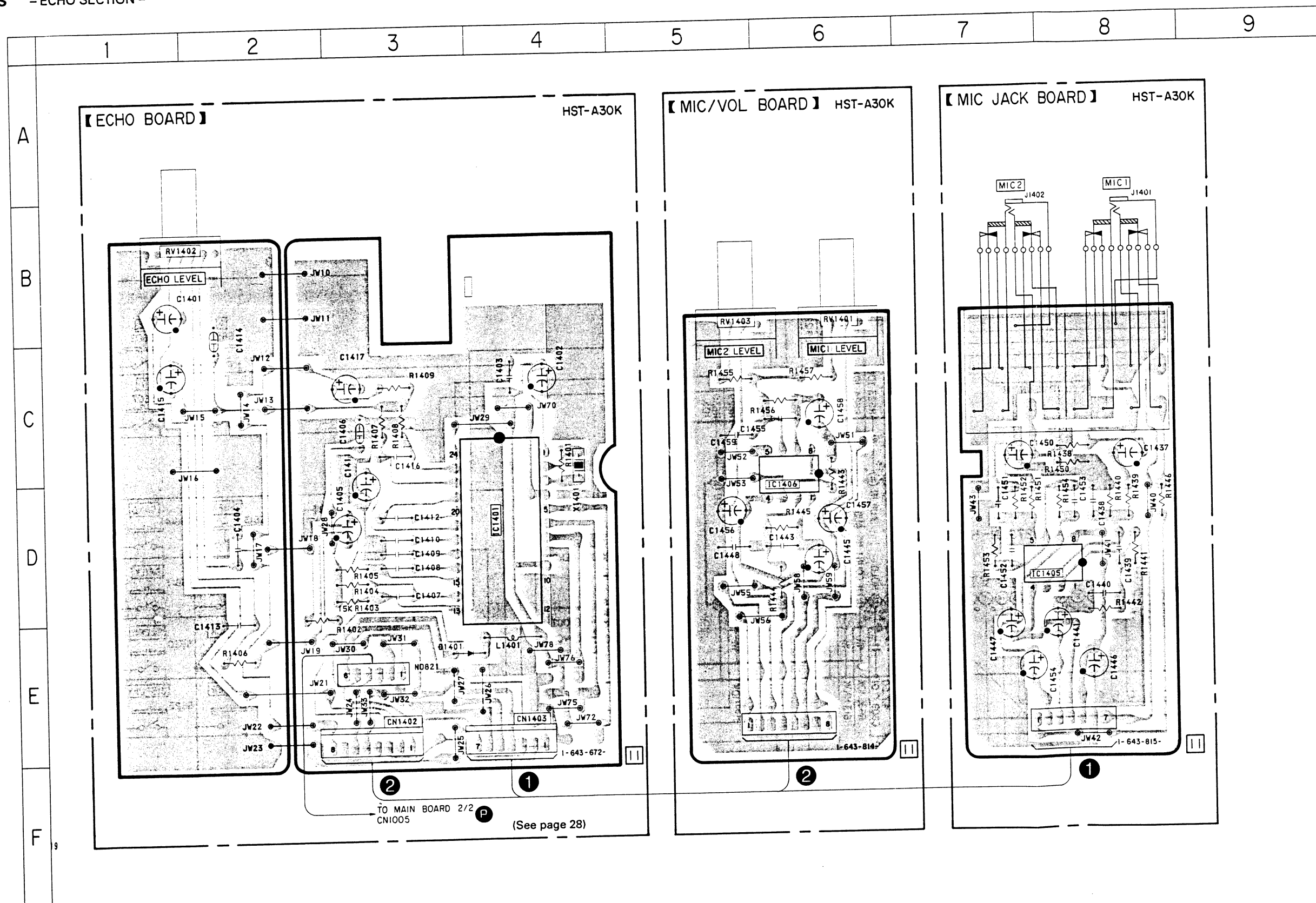
3-11. PRINTED WIRING BOARDS - ECHO SECTION -

● SEMICONDUCTOR LOCATION

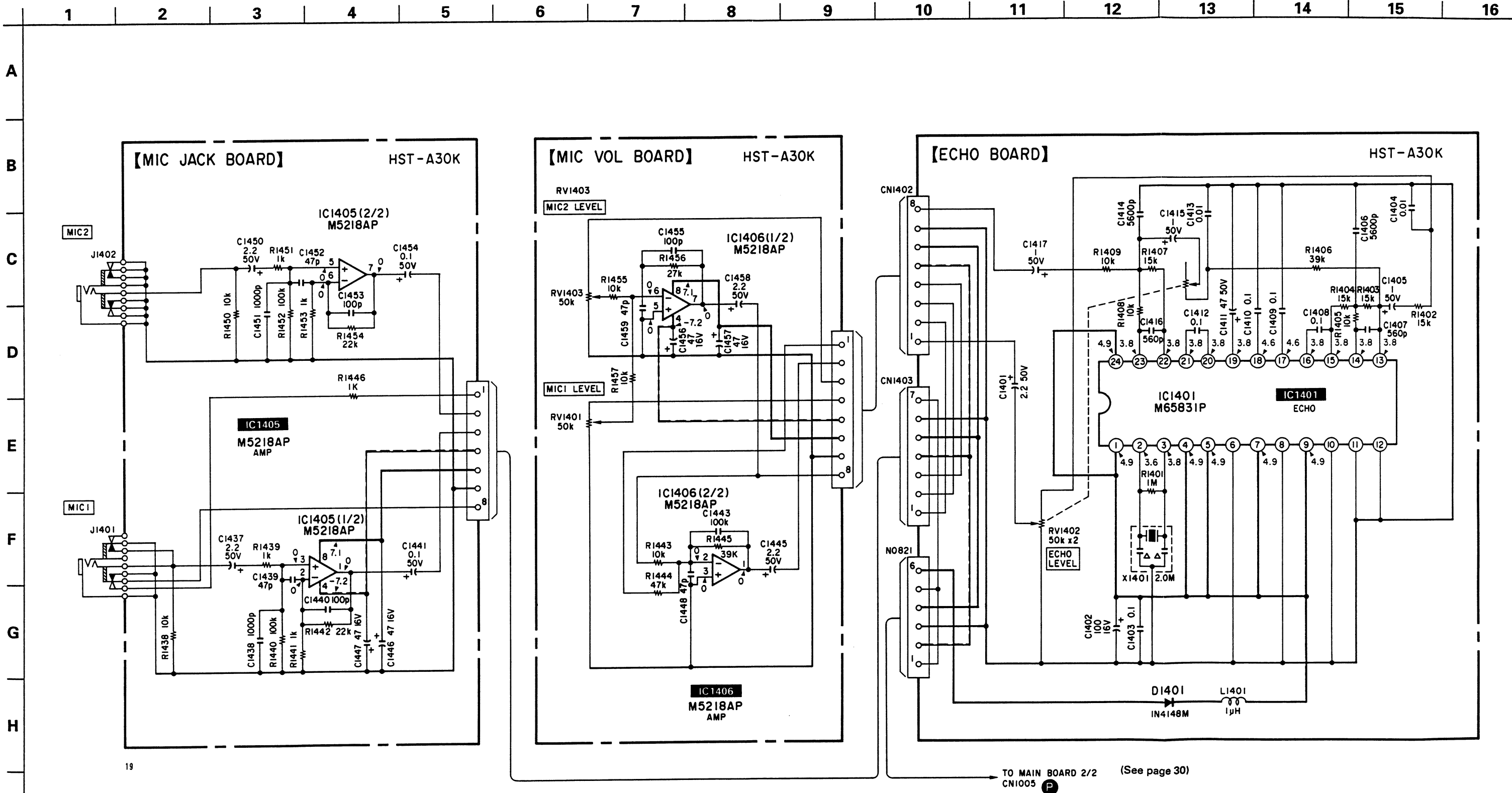
Ref. No.	Location
D1401	E-3
IC1401	D-4
IC1405	D-8
IC1406	D-6

Note:

- : Indicated a lead wire mounted on the component side
- : Pattern from the side which enables seeing



3-12. SCHEMATIC DIAGRAM - ECHO SECTION -



SECTION 4

EXPLODED VIEWS

NOTE:

- XX, -X mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts

Example:

KNOB,BALANCE(WHITE)...(RED)

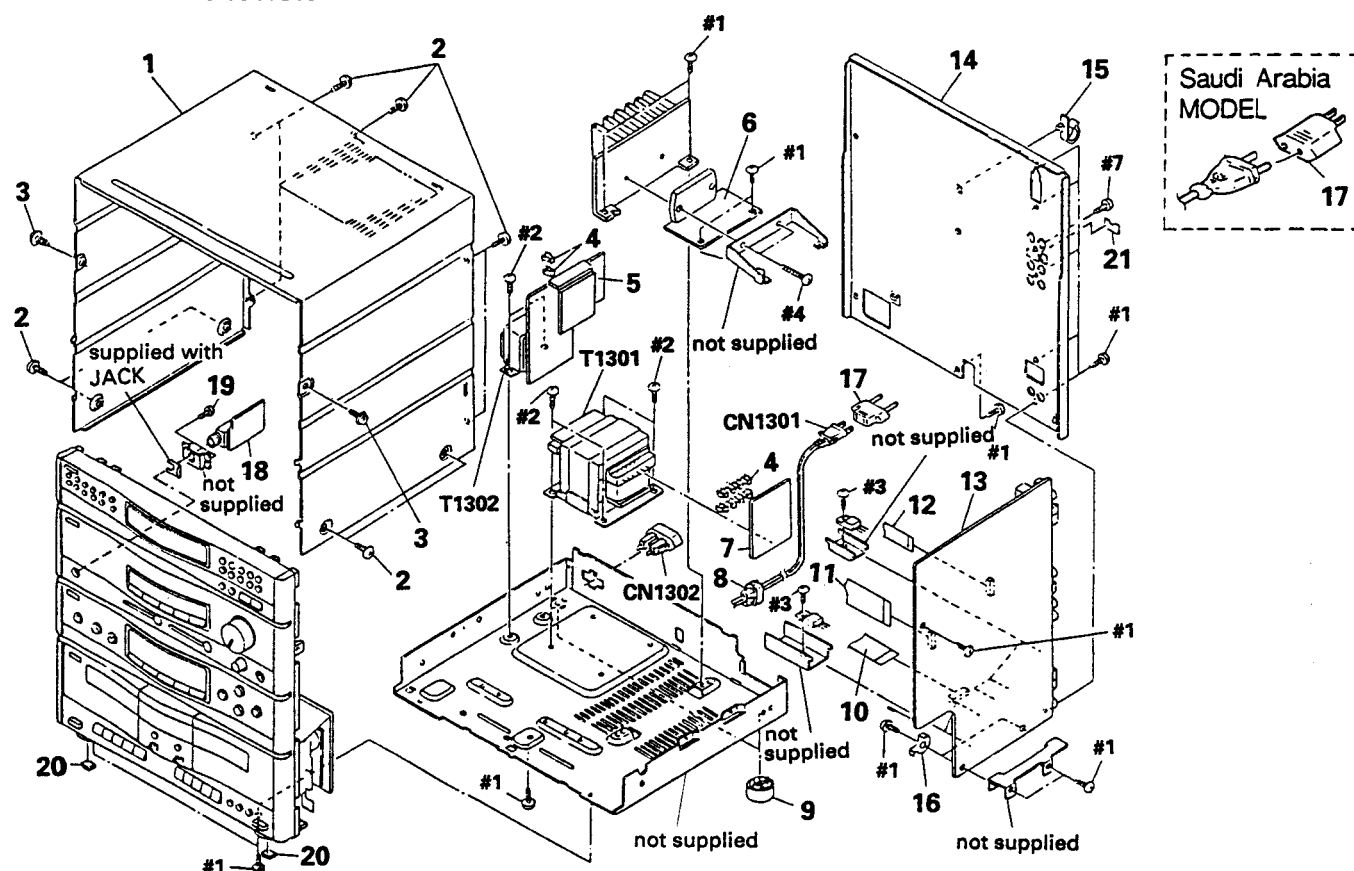
↑ ↑
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware(# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

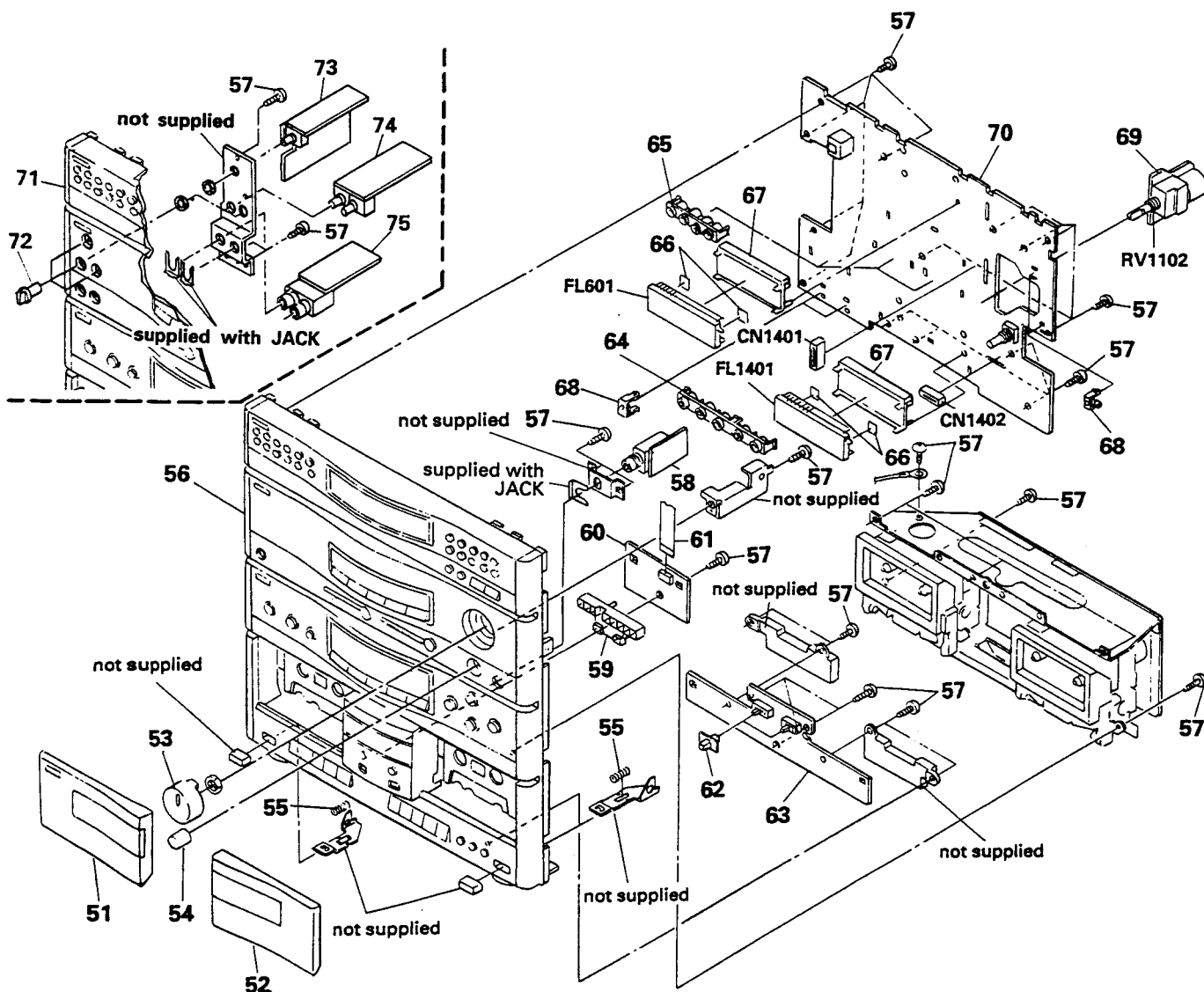
- E2 : E (120V AC Model)
- E3 : E (240V AC Model)
- AUS : Australian Model

4-1. CABINET SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 1	4-943-170-11	CASE		* 14	4-948-289-51	PANEL, BACK (A30K:E, Malaysia)	
2	4-929-973-01	SCREW (CASE, 3 POINT)		* 15	4-949-235-01	HOOK	
3	3-363-099-01	SCREW (CASE +3X8 TP2)		* 16	4-942-204-01	PLATE, GROUND	
4	1-533-217-31	HOLDER, FUSE		Δ 17	1-569-007-11	ADAPTER, CONVERSION 2P	
* 5	1-639-097-11	POWER BOARD				(A30:E3/A30K:E, Malaysia)	
* 6	A-4347-245-A	POWER AMPLIFIER BOARD, COMPLETE		Δ 17	1-569-008-11	ADAPTER, CONVERSION 2P(A30K:Saudi Arabia)	
* 7	1-639-098-12	FUSE BOARD		* 18	1-642-386-11	MIC BOARD (A30)	
8	3-703-571-11	BUSHING (S) (4516), CORD(A30K:E, Malaysia)		19	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
9	X-4941-228-1	FOOT ASSY		20	4-948-236-01	CUSHION (107)	
* 10	1-690-948-11	WIRE, FLAT TYPE (19 CORE)		21	4-952-935-01	LABEL (A30:E3, A30K)	
11	1-590-577-11	WIRE, FLAT TYPE (17 CORE)		Δ CN1301	1-575-651-11	CORD, POWER (A30K:Saudi Arabia)	
12	1-590-576-11	WIRE, FLAT TYPE (11 CORE)		Δ CN1301	1-575-653-11	CORD, POWER (A30:E2, E3/A30K:E, Malaysia)	
* 13	A-4347-242-A	MAIN BOARD, COMPLETE (A30:E2, AUS)		Δ CN1301	1-690-608-11	CORD, POWER (WITH CONNECTOR) (80:AUS)	
* 13	A-4347-616-A	MAIN BOARD, COMPLETE (A30K)		Δ CN1302	1-526-794-11	OUTLET, AC (A30K:Saudi Arabia)	
13	A-4356-047-A	MAIN BOARD, COMPLETE (A30:E3)		Δ CN1302	1-526-882-00	OUTLET, AC (A30:E2, E3/A30K:E, Malaysia)	
* 14	4-948-289-01	PANEL, BACK (A30:E2, E3)		Δ CN1302	1-540-196-11	OUTLET, AC (A30:AUS)	
14	4-948-289-11	PANEL, BACK (A30:AUS)		Δ T1301	1-450-484-11	TRANSFORMER, POWER	
* 14	4-948-289-31	PANEL, BACK (A30K:Saudi Arabia)		Δ T1302	1-450-483-11	TRANSFORMER, POWER	

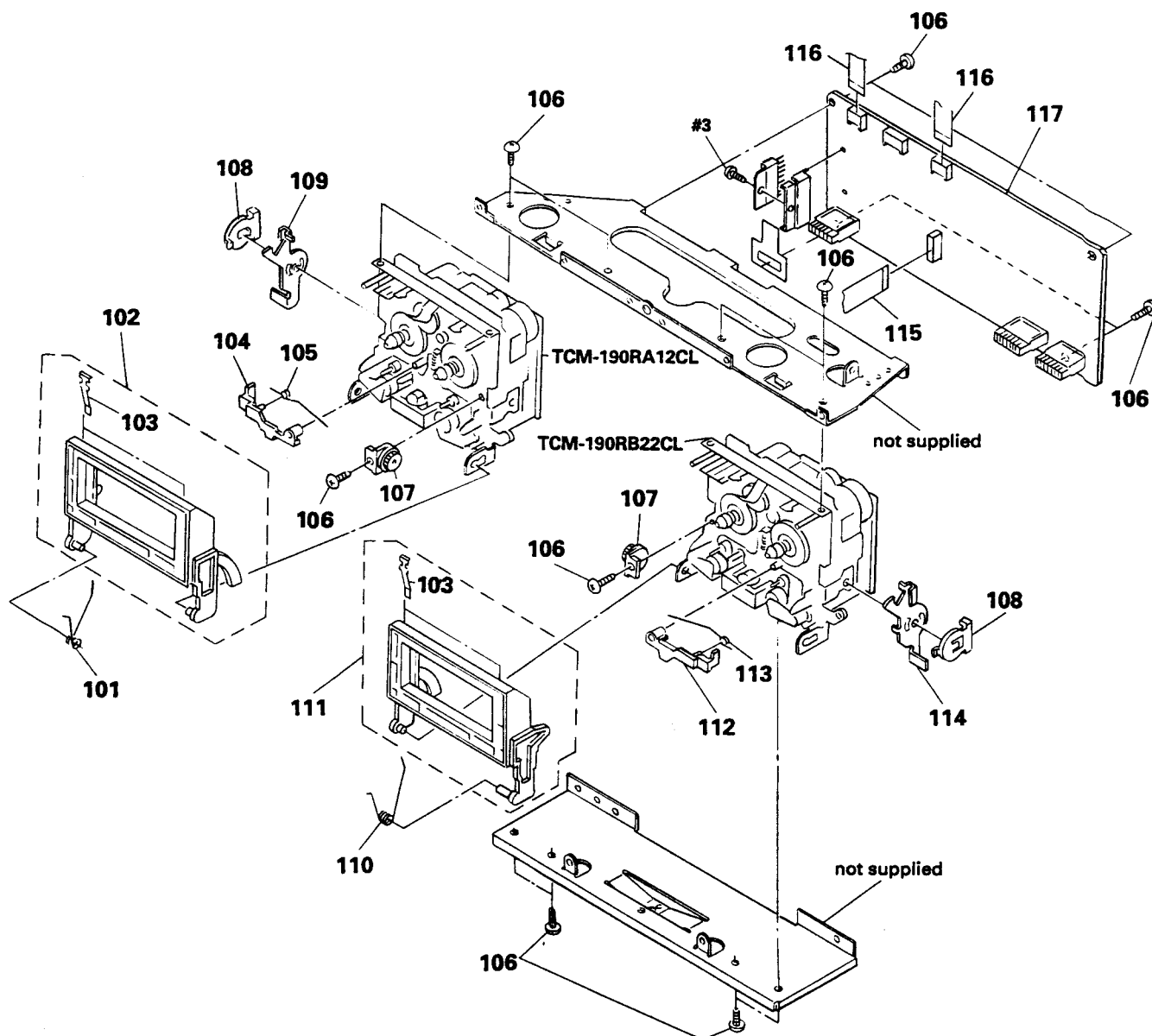
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	A-4325-456-A	LID (A) ASSY, CASSETTE		* 67	4-942-301-01	HOLDER, FL TUBE	
52	A-4325-457-A	LID (B) ASSY, CASSETTE		* 68	4-930-781-11	HOLDER, (VO), LED	
53	A-4323-382-A	KNOB (VO) ASSY		* 69	1-642-385-11	VOL. BOARD	
54	4-948-270-01	KNOB (DSB)		* 70	A-4347-246-A	PANEL BOARD, COMPLETE (A30)	
55	3-500-131-00	SPRING, COMPRESSION		* 70	A-4347-618-A	PANEL BOARD, COMPLETE (A30K)	
56	A-4325-470-A	PANEL ASSY, FRONT (A30)		71	A-4325-630-A	PANEL ASSY, FRONT (A30K)	
57	4-928-635-01	SCREW, +BV (2. 6X8) TAPPING		72	4-943-521-01	KNOB (K) (A30K)	
* 58	1-642-384-11	H.P. BOARD		* 73	A-4347-620-A	ECHO BOARD, COMPLETE (A30K)	
* 59	4-948-246-01	HOLDER (TC), LED		* 74	1-643-814-11	MIC VOL BOARD (A30K)	
* 60	1-642-153-11	DISPLAY BOARD		* 75	A-4347-621-A	MIC JACK BOARD, COMPLETE (A30K)	
61	1-590-575-11	WIRE, FLAT TYPE (11 CORE) (A30K)		* CN1401	1-568-836-11	SOCKET, CONNECTOR 17P	
62	4-948-273-01	KNOB, SLIDE		CN1402	1-568-802-11	SOCKET, CONNECTOR 19P	
* 63	1-642-152-11	TC SW BOARD		FL601	1-519-732-11	INDICATOR TUBE, FLUORESCENT	
* 64	4-948-247-01	HOLDER (FU), LED		FL1401	1-519-648-21	INDICATOR TUBE, FLUORESCENT	
* 65	4-948-248-01	HOLDER (DS), LED		RV1102	1-241-350-11	RES, VAR, CARBON 100K/100K (VOLUME)	
* 66	4-949-935-01	CUSHION (FL)					

4-3. MECHANISM SECTION 1

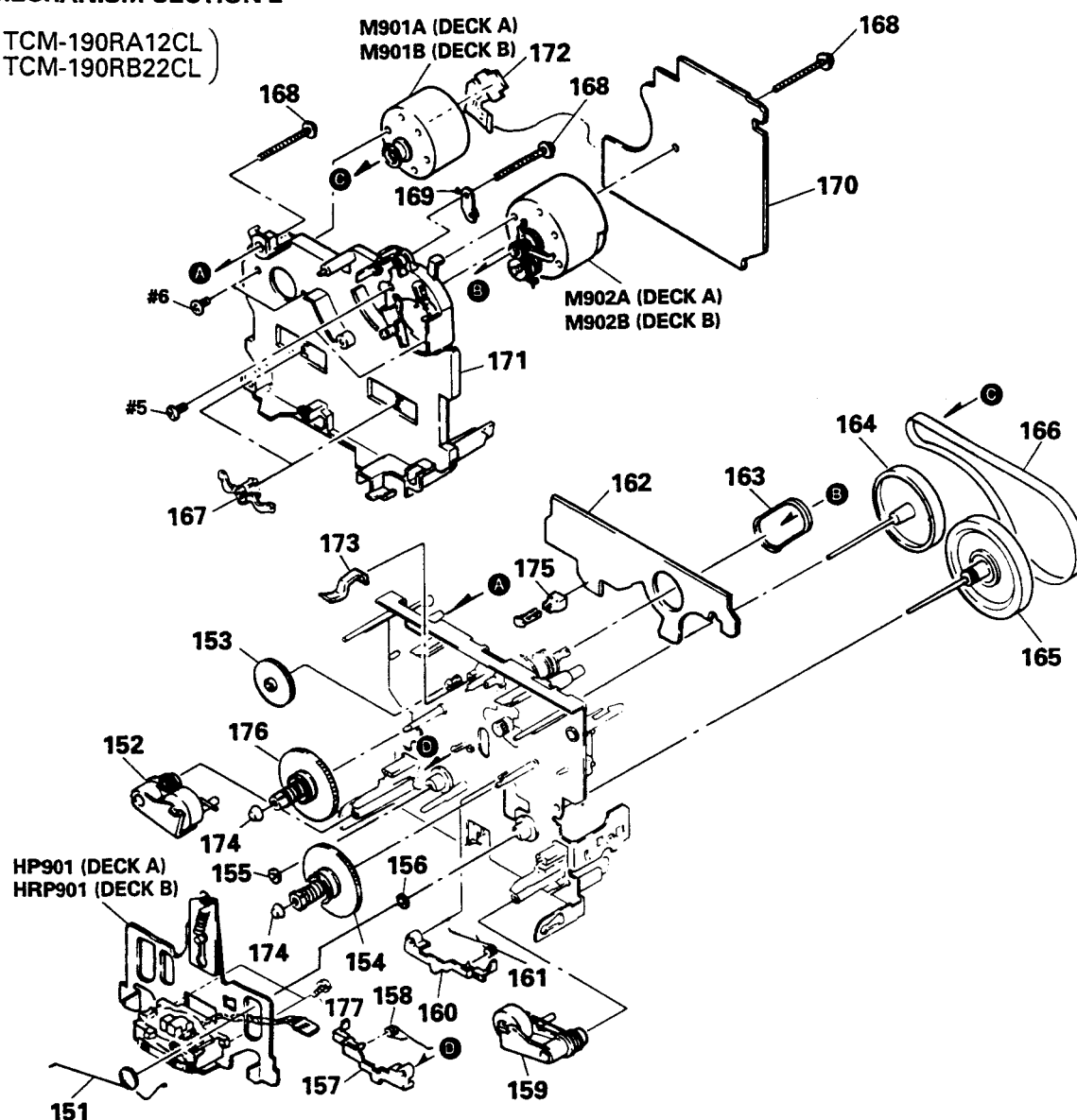
(TCM-190RA12CL)
(TCM-190RB22CL)



Ref.No.	Part No.	Description	Remarks
101	3-354-959-01	SPRING (LOADING L), TORSION	
102	A-4325-163-A	HOLDER (L) ASSY, CASSETTE	
103	3-308-823-11	SPRING	
104	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
105	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
106	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
107	3-354-963-01	DAMPER	
108	3-354-957-01	JOINT (LOCK LEVER)	
* 109	3-354-953-01	LEVER (LOCK LEVER L)	

Ref.No.	Part No.	Description	Remarks
110	3-354-960-01	SPRING (LOADING R), TORSION	
111	A-4325-164-A	HOLDER (R) ASSY, CASSETTE	
112	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
113	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 114	3-354-954-01	LEVER (LOCK LEVER R)	
115	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
116	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
* 117	A-4347-241-A	TC SIGNAL BOARD, COMPLETE	

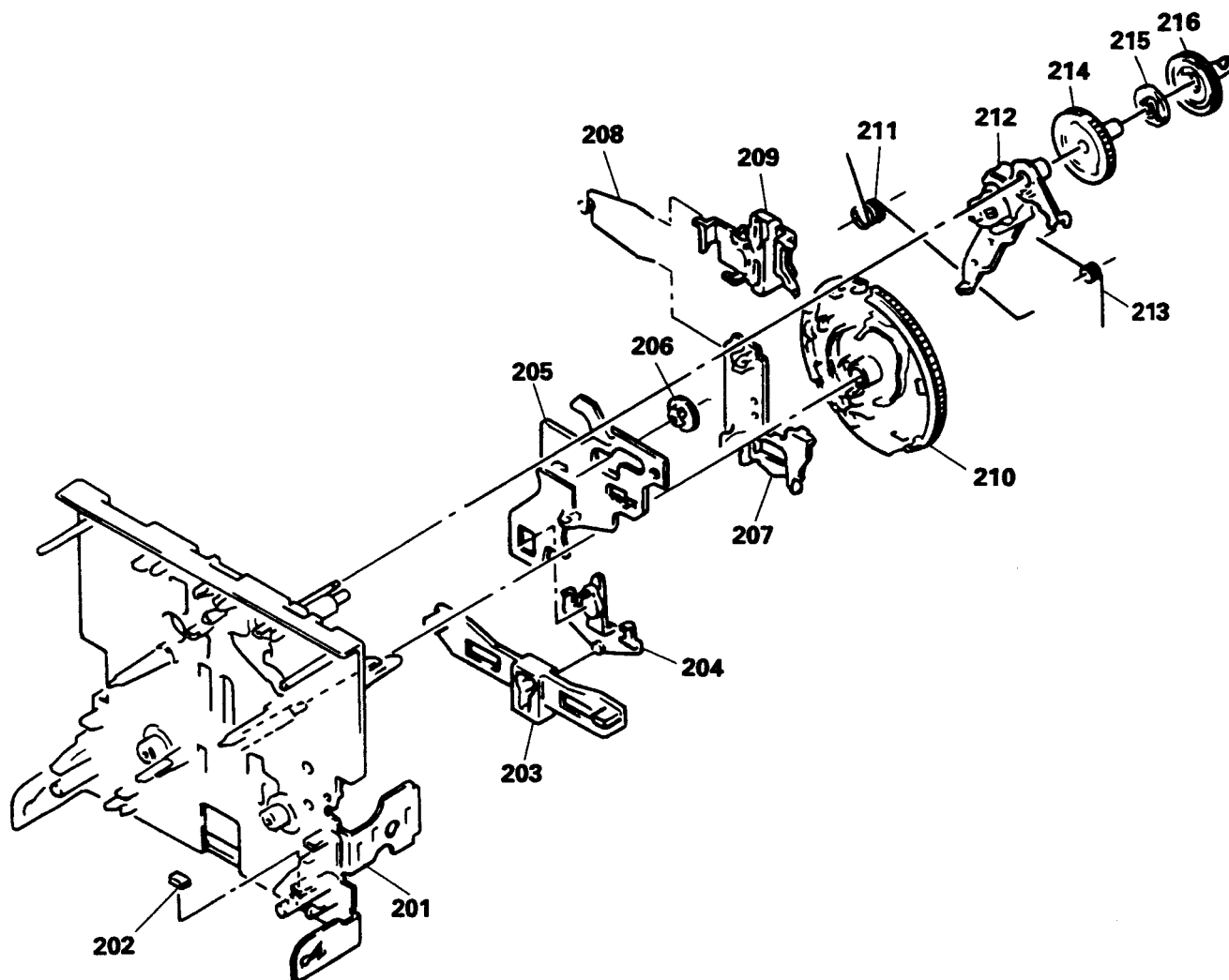
4-4. MECHANISM SECTION 2

(TCM-190RA12CL)
(TCM-190RB22CL)

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
151	3-359-455-01	SPRING, TORSION		168	3-359-414-01	SCREW (+PTPWH 2X23)	
152	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY		169	3-359-450-01	PLATE, GROUND	
153	3-359-424-01	GEAR (REV GEAR)		* 170	A-2006-623-A	AUDIO BOARD, COMPLETE (DECK A)	
154	X-3359-404-1	TABLE ASSY, REEL		* 170	A-2006-624-A	AUDIO BOARD, COMPLETE (DECK B)	
155	3-356-714-01	WASHER		* 171	3-359-436-11	BASE (THRUST RETAINER), FITTING	
156	3-356-713-01	WASHER		172	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
157	3-354-956-01	LEVER (EJ SAFTY LEVER R)		173	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF	
158	3-354-962-01	SPRING (EJ SAFTY SPRING R)		174	3-362-308-01	CAP (REEL)	
159	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY		175	3-343-419-01	HOLDER (S SENSER A)	
160	3-354-955-01	LEVER (EJ SAFTY LEVER L)		176	X-3362-078-1	TABLE ASSY (B), REEL	
161	3-354-961-01	SPRING (EJ SAFTY SPRING L)		177	3-356-716-01	SCREW (2X4) (B TIGHT), +P	
* 162	1-638-020-11	LEAF SW BOARD (DECK A)		HP901	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
* 162	1-638-020-11	LEAF SW BOARD (DECK B)		HRP901	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
163	3-359-466-01	BELT (FR), SQUARE		M901A	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK A)	
164	X-3359-410-1	FLYWHEEL (REV) ASSY		M901B	X-3359-417-1	MOTOR ASSY, CAPSTAN (DECK B)	
165	X-3364-554-1	FLYWHEEL (FWD) ASSY		M902A	X-3363-501-1	MOTOR ASSY, REEL (DECK A)	
166	3-359-417-01	BELT (FLAT), CAPSTAN		M902B	X-3363-501-1	MOTOR ASSY, REEL (DECK B)	
167	3-575-321-00	RETAINER, THRUST, CAPSTAN					

4-5. MECHANISM SECTION 3

(TCM-190RA12CL)
(TCM-190RB22CL)



Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
201	X-3359-415-1	BASE ASSY, MECHANICAL		209	3-359-429-01	SLIDER (BRAKE PLATE)	
202	3-359-469-01	SPACER		210	3-359-420-01	GEAR (CAM GEAR)	
* 203	3-359-425-01	SLIDER (REVERSE SLIDER)		211	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
204	3-359-426-01	LEVER (REVERSE LEVER)		212	X-3359-405-1	LEVER (FR ARM) ASSY	
* 205	3-359-415-01	SLIDER (TRIGGER SLIDER)		213	3-359-453-01	SPRING (FR ARM), TORSION	
206	3-359-448-01	GEAR (TRIGGER)		214	3-359-419-01	GEAR (FR GEAR)	
* 207	3-359-427-01	SLIDER (LEVERSE SLIDER)		215	3-359-421-01	CLUTCH (REEL DISK)	
208	3-359-454-01	SPRING, TORSION		216	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 5

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- E2 : E (120V AC Model)
- E3 : E (240V AC Model)
- AUS : Australian Model

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked "***" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
• CAPACITORS
uF : μ F
• COILS
uH : μ H

AUDIO(DECK A)**AUDIO(DECK B)**

Ref. No.	Part No.	Description	Remarks
*	A-2006-623-A	AUDIO BOARD, COMPLETE (DECK A) *****	
		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-136-157-00	FILM 0.022uF 5% 50V	
C13	1-124-234-00	ELECT 22uF 20% 16V	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C22	1-136-157-00	FILM 0.022uF 5% 50V	
C23	1-124-234-00	ELECT 22uF 20% 16V	
C28	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C31	1-124-234-00	ELECT 22uF 20% 16V	
C32	1-124-234-00	ELECT 22uF 20% 16V	
C72	1-124-499-11	ELECT, NONPOLAR R 1uF 20% 50V	
		< JACK >	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
		< CONNECTOR >	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
		< IC >	
IC31	8-759-106-02	IC uPC4570G2	
		< JUMPER RESISTOR >	
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW51	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< TRANSISTOR >	

Ref. No.	Part No.	Description	Remarks
Q71	8-729-602-36	TRANSISTOR 2SA1602	
		< RESISTOR >	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV11	1-238-012-11	RES, ADJ, CARBON 1K	
RV21	1-238-012-11	RES, ADJ, CARBON 1K	
RV71	1-238-016-11	RES, ADJ, CARBON 10K	
RV72	1-238-016-11	RES, ADJ, CARBON 10K	

*	A-2006-624-A	AUDIO BOARD, COMPLETE (DECK B) *****	
		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-136-157-00	FILM 0.022uF 5% 50V	
C13	1-124-234-00	ELECT 22uF 20% 16V	
C14	1-136-273-91	FILM 75PF 5% 630V	
C15	1-164-080-11	CERAMIC 390PF 10% 50V	
C17	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

AUDIO(DECK B)

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
C21	1-163-131-00	CERAMIC CHIP	390PF 5% 50V	JW59	1-216-296-00	METAL CHIP	0 5% 1/8W
C22	1-136-157-00	FILM	0.022uF 5% 50V	JW60	1-216-296-00	METAL CHIP	0 5% 1/8W
C23	1-124-234-00	ELECT	22uF 20% 16V	JW61	1-216-296-00	METAL CHIP	0 5% 1/8W
C24	1-136-273-91	FILM	75PF 5% 630V			< COIL >	
C25	1-164-080-11	CERAMIC	390PF 10% 50V	L11	1-410-780-11	INDUCTOR	27mH
C27	1-163-103-00	CERAMIC CHIP	27PF 5% 50V	L21	1-410-780-11	INDUCTOR	27mH
C28	1-163-117-00	CERAMIC CHIP	100PF 5% 50V			< TRANSISTOR >	
C31	1-124-234-00	ELECT	22uF 20% 16V	Q51	8-729-808-01	TRANSISTOR	2SD1622-S
C32	1-124-234-00	ELECT	22uF 20% 16V	Q52	8-729-808-01	TRANSISTOR	2SD1622-S
C33	1-124-234-00	ELECT	22uF 20% 16V	Q53	8-729-808-01	TRANSISTOR	2SD1622-S
C51	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V	Q71	8-729-602-36	TRANSISTOR	2SA1602
C52	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V			< RESISTOR >	
C53	1-163-022-00	CERAMIC CHIP	0.012uF 10% 50V	R11	1-216-099-00	METAL CHIP	120K 5% 1/10W
C54	1-136-559-11	FILM	0.0047uF 5% 630V	R12	1-216-025-00	METAL CHIP	100 5% 1/10W
C56	1-164-505-11	CERAMIC CHIP	2.2uF 16V	R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W
C57	1-164-346-11	CERAMIC CHIP	1uF 16V	R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
C58	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V	R15	1-249-430-11	CARBON	12K 5% 1/4W
C72	1-124-499-11	ELECT, NONPOLAR R	1uF 20% 50V	R21	1-216-099-00	METAL CHIP	120K 5% 1/10W
		< JACK >		R22	1-216-025-00	METAL CHIP	100 5% 1/10W
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD		R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD		R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
		< CONNECTOR >		R25	1-249-430-11	CARBON	12K 5% 1/4W
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P		R31	1-216-033-00	METAL CHIP	220 5% 1/10W
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		R32	1-216-033-00	METAL CHIP	220 5% 1/10W
* CNP72	1-580-411-11	SOCKET, CONNECTOR 4P		R41	1-249-393-11	CARBON	10 5% 1/4W
		< DIODE >		R42	1-249-393-11	CARBON	10 5% 1/4W
D31	8-719-404-46	DIODE	MA110-TW	R51	1-216-075-00	METAL CHIP	12K 5% 1/10W
		< IC >		R52	1-216-075-00	METAL CHIP	12K 5% 1/10W
IC31	8-759-106-02	IC	uPC4570G2	R53	1-216-073-00	METAL CHIP	10K 5% 1/10W
		< JUMPER RESISTOR >		R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW1	1-216-296-00	METAL CHIP	0 5% 1/8W	R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW2	1-216-295-00	METAL CHIP	0 5% 1/10W	R56	1-216-298-00	METAL CHIP	2.2 5% 1/10W
JW3	1-216-295-00	METAL CHIP	0 5% 1/10W	R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
JW4	1-216-295-00	METAL CHIP	0 5% 1/10W	R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
JW5	1-216-295-00	METAL CHIP	0 5% 1/10W	R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
JW6	1-216-295-00	METAL CHIP	0 5% 1/10W	R74	1-216-089-00	METAL CHIP	47K 5% 1/10W
JW7	1-216-295-00	METAL CHIP	0 5% 1/10W			< VARIABLE RESISTOR >	
JW52	1-216-296-00	METAL CHIP	0 5% 1/8W	RV11	1-238-012-11	RES, ADJ, CARBON	1K
JW53	1-216-296-00	METAL CHIP	0 5% 1/8W	RV12	1-238-551-11	RES, ADJ, CARBON	220K
JW54	1-216-296-00	METAL CHIP	0 5% 1/8W	RV21	1-238-012-11	RES, ADJ, CARBON	1K
JW55	1-216-296-00	METAL CHIP	0 5% 1/8W	RV22	1-238-551-11	RES, ADJ, CARBON	220K
JW56	1-216-296-00	METAL CHIP	0 5% 1/8W	RV71	1-238-016-11	RES, ADJ, CARBON	10K
JW57	1-216-296-00	METAL CHIP	0 5% 1/8W	RV72	1-238-016-11	RES, ADJ, CARBON	10K
JW58	1-216-296-00	METAL CHIP	0 5% 1/8W			< RELAY >	
				RY31	1-515-726-11	RELAY	

When indicating parts by reference number, please include the board name.

AUDIO(DECK B)

MAIN

Ref. No.	Part No.	Description	Remarks
< TRANSFORMER >			
T51	1-406-419-11	COIL, BIAS OSCILLATION	

*	A-4347-242-A	MAIN BOARD, COMPLETE (A30:E2, AUS)	
*	A-4356-047-A	MAIN BOARD, COMPLETE (A30:E3)	
*	A-4347-616-A	MAIN BOARD, COMPLETE (A30K)	

< CAPACITOR >			
C302	1-124-477-11	ELECT 47uF 20%	25V
C303	1-161-379-00	CERAMIC 0.01uF 20%	25V
C307	1-161-379-00	CERAMIC 0.01uF 20%	25V
C308	1-161-379-00	CERAMIC 0.01uF 20%	25V
C309	1-161-379-00	CERAMIC 0.01uF 20%	25V
C310	1-124-477-11	ELECT 47uF 20%	25V
C311	1-161-379-00	CERAMIC 0.01uF 20%	25V
C312	1-101-006-00	CERAMIC 0.047uF	50V
C313	1-123-382-00	ELECT 3.3uF 20%	100V
C314	1-161-379-00	CERAMIC 0.01uF 20%	25V
C315	1-161-329-00	CERAMIC 0.0068uF 30%	16V
C316	1-162-282-31	CERAMIC 100PF 10%	50V
C318	1-124-903-11	ELECT 1uF 20%	50V
C320	1-124-903-11	ELECT 1uF 20%	50V
C321	1-124-902-00	ELECT 0.47uF 20%	50V
C322	1-124-463-00	ELECT 0.1uF 20%	50V
C323	1-161-329-00	CERAMIC 0.0068uF 30%	16V
C324	1-161-329-00	CERAMIC 0.0068uF 30%	16V
C325	1-124-477-11	ELECT 47uF 20%	25V
C326	1-124-907-11	ELECT 10uF 20%	50V
C327	1-161-379-00	CERAMIC 0.01uF 20%	25V
C328	1-124-463-00	ELECT 0.1uF 20%	50V
C329	1-124-927-11	ELECT 4.7uF 20%	100V
C330	1-161-379-00	CERAMIC 0.01uF 20%	25V
C331	1-126-176-11	ELECT 220uF 20%	10V
C332	1-161-379-00	CERAMIC 0.01uF 20%	25V
C335	1-161-379-00	CERAMIC 0.01uF 20%	25V
C336	1-161-379-00	CERAMIC 0.01uF 20%	25V
C341	1-123-382-00	ELECT 3.3uF 20%	100V
C342	1-123-382-00	ELECT 3.3uF 20%	100V
C343	1-123-382-00	ELECT 3.3uF 20%	100V
C344	1-123-382-00	ELECT 3.3uF 20%	100V
C345	1-161-375-00	CERAMIC 0.0022uF 20%	50V
C346	1-161-375-00	CERAMIC 0.0022uF 20%	50V
C361	1-164-098-11	CERAMIC 0.047uF	12V
C362	1-161-494-00	CERAMIC 0.022uF	25V
C501	1-102-961-00	CERAMIC 27PF 5%	50V
C502	1-102-961-00	CERAMIC 27PF 5%	50V
C503	1-124-477-11	ELECT 47uF 20%	25V
C504	1-161-379-00	CERAMIC 0.01uF 20%	25V

Ref. No.	Part No.	Description	Remarks
C505	1-161-379-00	CERAMIC 0.01uF 20%	25V
C506	1-161-379-00	CERAMIC 0.01uF 20%	25V
C507	1-161-379-00	CERAMIC 0.01uF 20%	25V
C521	1-124-925-11	ELECT 2.2uF 20%	100V
C522	1-124-463-00	ELECT 0.1uF 20%	50V
C523	1-161-379-00	CERAMIC 0.01uF 20%	25V
C524	1-161-379-00	CERAMIC 0.01uF 20%	25V
C525	1-124-477-11	ELECT 47uF 20%	25V
C1001	1-124-257-00	ELECT 2.2uF 20%	50V
C1002	1-162-282-31	CERAMIC 100PF 10%	50V
C1003	1-162-282-31	CERAMIC 100PF 10%	50V
C1004	1-124-477-11	ELECT 47uF 20%	25V
C1005	1-161-377-00	CERAMIC 0.0047uF 20%	16V
C1006	1-161-374-11	CERAMIC 0.0015uF 20%	50V
C1007	1-124-464-11	ELECT 0.22uF 20%	50V
C1008	1-124-477-11	ELECT 47uF 20%	25V
C1009	1-124-477-11	ELECT 47uF 20%	25V
C1010	1-124-925-11	ELECT 2.2uF 20%	100V
C1012	1-124-925-11	ELECT 2.2uF 20%	100V
C1014	1-161-494-00	CERAMIC 0.022uF	25V
C1015	1-161-494-00	CERAMIC 0.022uF	25V
C1051	1-124-257-00	ELECT 2.2uF 20%	50V
C1052	1-162-282-31	CERAMIC 100PF 10%	50V
C1053	1-162-282-31	CERAMIC 100PF 10%	50V
C1054	1-124-477-11	ELECT 47uF 20%	25V
C1055	1-161-377-00	CERAMIC 0.0047uF 20%	16V
C1056	1-161-374-11	CERAMIC 0.0015uF 20%	50V
C1057	1-124-464-11	ELECT 0.22uF 20%	50V
C1058	1-124-477-11	ELECT 47uF 20%	25V
C1059	1-124-477-11	ELECT 47uF 20%	25V
C1060	1-124-925-11	ELECT 2.2uF 20%	100V
C1062	1-124-925-11	ELECT 2.2uF 20%	100V
C1064	1-161-494-00	CERAMIC 0.022uF	25V
C1065	1-161-494-00	CERAMIC 0.022uF	25V
C1101	1-124-925-11	ELECT 2.2uF 20%	100V
C1102	1-162-282-31	CERAMIC 100PF 10%	50V
C1103	1-162-282-31	CERAMIC 100PF 10%	50V
C1104	1-124-907-11	ELECT 10uF 20%	50V
C1105	1-124-252-00	ELECT 0.33uF 20%	50V
C1106	1-136-160-00	FILM 0.039uF 5%	50V
C1107	1-124-477-11	ELECT 47uF 20%	25V
C1108	1-161-494-00	CERAMIC 0.022uF	25V
C1120	1-162-294-31	CERAMIC 0.001uF 10%	50V
C1121	1-162-286-31	CERAMIC 220PF 10%	50V
C1122	1-124-907-11	ELECT 10uF 20%	50V
C1123	1-124-903-11	ELECT 1uF 20%	50V
C1124	1-136-163-00	FILM 0.068uF 5%	50V
C1125	1-124-902-00	ELECT 0.47uF 20%	50V
C1126	1-136-158-00	FILM 0.027uF 5%	50V
C1127	1-136-168-00	FILM 0.18uF 5%	50V

When indicating parts by reference number, please include the board name.

MAIN

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
C1128	1-136-153-00	FILM	0.01uF	5%	50V	C1304	1-136-165-00	FILM	0.1uF	5%	50V
C1129	1-136-163-00	FILM	0.068uF	5%	50V	C1305	1-126-138-11	ELECT	4700uF	20%	50V
C1130	1-130-478-00	MYLAR	0.0039uF	5%	50V	C1306	1-126-138-11	ELECT	4700uF	20%	50V
C1131	1-136-159-00	FILM	0.033uF	5%	50V	C1307	1-124-903-11	ELECT	1uF	20%	50V
C1132	1-130-474-00	MYLAR	0.0018uF	5%	50V	C1308	1-102-394-11	CERAMIC	0.01uF		250V
C1133	1-136-154-00	FILM	0.012uF	5%	50V	C1309	1-124-122-11	ELECT	100uF	20%	50V
C1134	1-162-292-31	CERAMIC	680PF	10%	50V	C1310	1-124-122-11	ELECT	100uF	20%	50V
C1135	1-161-377-00	CERAMIC	0.0047uF	20%	16V	C1311	1-126-105-11	ELECT	1000uF	20%	35V
C1136	1-162-287-31	CERAMIC	270PF	10%	50V	C1312	1-126-101-11	ELECT	100uF	20%	16V
C1137	1-124-477-11	ELECT	47uF	20%	25V	C1313	1-124-477-11	ELECT	47uF	20%	25V
C1138	1-124-477-11	ELECT	47uF	20%	25V	C1314	1-124-122-11	ELECT	100uF	20%	50V (A30:E2, AUS)
C1139	1-161-494-00	CERAMIC	0.022uF		25V	C1315	1-126-101-11	ELECT	100uF	20%	16V (A30:E2, AUS)
C1140	1-161-494-00	CERAMIC	0.022uF		25V	C1317	1-124-636-00	ELECT	3300uF	20%	25V
C1151	1-124-925-11	ELECT	2.2uF	20%	100V	C1318	1-124-636-00	ELECT	3300uF	20%	25V
C1152	1-162-282-31	CERAMIC	100PF	10%	50V	C1319	1-124-907-11	ELECT	10uF	20%	50V
C1153	1-162-282-31	CERAMIC	100PF	10%	50V	C1320	1-124-907-11	ELECT	10uF	20%	50V
C1154	1-124-907-11	ELECT	10uF	20%	50V	C1325	1-126-103-11	ELECT	470uF	20%	16V
C1155	1-124-252-00	ELECT	0.33uF	20%	50V	C1326	1-124-585-11	ELECT	3300uF	20%	10V
C1156	1-136-160-00	FILM	0.039uF	5%	50V	C1327	1-124-907-11	ELECT	10uF	20%	50V
C1157	1-124-477-11	ELECT	47uF	20%	25V	C1328	1-124-585-11	ELECT	3300uF	20%	10V
C1158	1-161-494-00	CERAMIC	0.022uF		25V	C1346	1-124-477-11	ELECT	47uF	20%	25V
C1170	1-162-294-31	CERAMIC	0.001uF	10%	50V	< FILTER >					
C1171	1-162-286-31	CERAMIC	220PF	10%	50V	CF301	1-577-070-81	FILTER, CERAMIC			
C1172	1-124-907-11	ELECT	10uF	20%	50V	CF303	1-577-070-81	FILTER, CERAMIC			
C1173	1-124-903-11	ELECT	1uF	20%	50V	CF304	1-577-075-11	OSCILLATOR, CERAMIC			
C1174	1-136-163-00	FILM	0.068uF	5%	50V	< CONNECTOR >					
C1175	1-124-902-00	ELECT	0.47uF	20%	50V	* CN501	1-568-830-11	SOCKET, CONNECTOR 11P			
C1176	1-136-158-00	FILM	0.027uF	5%	50V	* CN1001	1-580-691-11	JACK, PIN 2P			
C1177	1-136-168-00	FILM	0.18uF	5%	50V	* CN1002	1-580-912-11	JACK, PIN 4P			
C1178	1-136-153-00	FILM	0.01uF	5%	50V	* CN1003	1-564-508-11	PLUG, CONNECTOR 5P			
C1179	1-136-163-00	FILM	0.068uF	5%	50V	* CN1004	1-568-836-11	SOCKET, CONNECTOR 17P			
C1180	1-130-478-00	MYLAR	0.0039uF	5%	50V	* CN1005	1-568-955-11	PIN, CONNECTOR 6P			
C1181	1-136-159-00	FILM	0.033uF	5%	50V	CN1201	1-569-130-11	JACK, PIN 2P			
C1182	1-130-474-00	MYLAR	0.0018uF	5%	50V	* CN1203	1-564-506-11	PLUG, CONNECTOR 3P			
C1183	1-136-154-00	FILM	0.012uF	5%	50V	* CN1204	1-564-510-11	PLUG, CONNECTOR 7P			
C1184	1-162-292-31	CERAMIC	680PF	10%	50V	* CN1302	1-566-210-11	PIN, CONNECTOR 3P (A30:E2, AUS)			
C1185	1-161-377-00	CERAMIC	0.0047uF	20%	16V	* CN1303	1-564-509-11	PLUG, CONNECTOR 6P			
C1186	1-162-287-31	CERAMIC	270PF	10%	50V	* CN1304	1-568-934-11	PIN, CONNECTOR 7P			
C1187	1-124-477-11	ELECT	47uF	20%	25V	* CN1305	1-568-830-11	SOCKET, CONNECTOR 11P			
C1188	1-124-477-11	ELECT	47uF	20%	25V	CN1306	1-568-802-11	SOCKET, CONNECTOR 19P			
C1189	1-161-494-00	CERAMIC	0.022uF		25V	< COMPOSITION CIRCUIT BLOCK >					
C1212	1-126-233-11	ELECT	22uF	20%	50V	CP1101	1-239-053-11	COMPOSITION CIRCUIT BLOCK			
C1213	1-126-233-11	ELECT	22uF	20%	50V	CP1151	1-239-053-11	COMPOSITION CIRCUIT BLOCK			
C1221	1-126-101-11	ELECT	100uF	20%	16V	< DIODE >					
C1222	1-126-176-11	ELECT	220uF	20%	10V	D1202	8-719-987-63	DIODE 1N4148M			
C1223	1-126-176-11	ELECT	220uF	20%	10V						
C1262	1-126-233-11	ELECT	22uF	20%	50V						
C1263	1-126-233-11	ELECT	22uF	20%	50V						
C1302	1-102-394-11	CERAMIC	0.01uF		250V						
C1303	1-136-165-00	FILM	0.1uF	5%	50V						

When indicating parts by reference number, please include the barcode name.

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
D1203	8-719-987-63	DIODE 1N4148M		LPF301	1-235-164-00	FILTER, LOW PASS	
D1204	8-719-987-63	DIODE 1N4148M		LPF302	1-235-164-00	FILTER, LOW PASS	
D1303	8-719-987-63	DIODE 1N4148M				< TRANSISTOR >	
D1304	8-719-987-63	DIODE 1N4148M					
D1305	8-719-302-38	DIODE RBV-602-01		Q303	8-729-230-XX	TRANSISTOR 2SC2669-OY	
D1306	8-719-200-82	DIODE 11ES2		Q304	8-729-230-XX	TRANSISTOR 2SC2669-OY	
D1307	8-719-200-82	DIODE 11ES2		Q305	8-729-900-80	TRANSISTOR DTC114ES	
D1308	8-719-200-82	DIODE 11ES2		Q306	8-729-900-61	TRANSISTOR DTA114ES	
D1309	8-719-200-82	DIODE 11ES2		Q307	8-729-900-80	TRANSISTOR DTC114ES	
D1310	8-719-200-82	DIODE 11ES2					
D1311	8-719-200-82	DIODE 11ES2		Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1312	8-719-200-82	DIODE 11ES2		Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1313	8-719-200-82	DIODE 11ES2		Q501	8-729-900-80	TRANSISTOR DTC114ES	
D1314	8-719-001-76	DIODE UZL-12M3		Q502	8-729-900-61	TRANSISTOR DTA114ES	
D1315	8-719-200-82	DIODE 11ES2		Q521	8-729-202-67	TRANSISTOR 2SK246-GR3	
D1316	8-719-200-82	DIODE 11ES2					
D1331	8-719-200-82	DIODE 11ES2		Q522	8-729-201-84	TRANSISTOR 2SC3112-B	
		< FRONTEND >		Q1001	8-729-119-76	TRANSISTOR 2SA1175-HFE	
FE301	1-465-006-11	FRONT END (FM) (2 GANG)		Q1002	8-729-119-78	TRANSISTOR 2SC2785-HFE	
FE352	1-236-461-11	ENCAPSULATED COMPONENT		Q1003	8-729-119-76	TRANSISTOR 2SA1175-HFE (A30K)	
		< IC >		Q1004	8-729-900-36	TRANSISTOR DTC124ES	
IC301	8-759-821-45	IC LA1851N		Q1005	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC501	8-759-820-91	IC LC7218		Q1006	8-729-900-36	TRANSISTOR DTC124ES	
IC1001	8-759-634-51	IC M5218AP		Q1101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC1002	8-759-000-48	IC MC14052BCP		Q1151	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC1003	8-759-000-49	IC MC14066BCP					
IC1004	8-759-634-51	IC M5218AP		Q1204	8-729-900-63	TRANSISTOR DTA124ES	
IC1005	8-759-000-49	IC MC14066BCP		Q1301	8-729-209-15	TRANSISTOR 2SD2012	
IC1101	8-759-634-51	IC M5218AP				< RESISTOR >	
IC1102	8-759-000-48	IC MC14052BCP		R301	1-249-401-11	CARBON 47 5% 1/4W	
IC1103	8-759-000-48	IC MC14052BCP		R302	1-249-413-11	CARBON 470 5% 1/4W	
IC1104	8-759-804-49	IC LC7522		R308	1-249-411-11	CARBON 330 5% 1/4W	
IC1105	8-759-633-78	IC M5289P		R309	1-249-432-11	CARBON 18K 5% 1/4W	
IC1155	8-759-633-78	IC M5289P		R310	1-249-411-11	CARBON 330 5% 1/4W	
IC1202	8-759-111-68	IC uPC1237HA		R311	1-249-434-11	CARBON 27K 5% 1/4W	
IC1301	8-759-231-58	IC TA7812S (A30:E2, AUS)		R312	1-249-414-11	CARBON 560 5% 1/4W	
IC1302	8-759-604-86	IC M5F7807L		R313	1-249-405-11	CARBON 100 5% 1/4W	
IC1303	8-759-604-90	IC M5F7907L		R315	1-249-404-00	CARBON 82 5% 1/4W	
IC1304	8-759-231-53	IC TA7805S		R316	1-249-429-11	CARBON 10K 5% 1/4W	
		< IFT >		R317	1-249-417-11	CARBON 1K 5% 1/4W	
IFT301	1-404-713-11	TRANSFORMER, IF		R318	1-249-435-11	CARBON 33K 5% 1/4W	
		< COIL >		R319	1-249-428-11	CARBON 8.2K 5% 1/4W	
L301	1-410-686-11	INDUCTOR 1mH		R320	1-249-432-11	CARBON 18K 5% 1/4W	
		< FILTER >		R321	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R322	1-249-429-11	CARBON 10K 5% 1/4W	
				R323	1-249-418-11	CARBON 1.2K 5% 1/4W	
				R324	1-249-429-11	CARBON 10K 5% 1/4W	
				R325	1-249-429-11	CARBON 10K 5% 1/4W	
				R326	1-249-409-11	CARBON 220 5% 1/4W	
				R327	1-249-437-11	CARBON 47K 5% 1/4W	
				R328	1-249-437-11	CARBON 47K 5% 1/4W	

When indicating parts by reference number, please include the board name.

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R331	1-247-891-00	CARBON	330K 5% 1/4W	R1021	1-249-433-11	CARBON	22K 5% 1/4W
R332	1-247-891-00	CARBON	330K 5% 1/4W	R1022	1-249-433-11	CARBON	22K 5% 1/4W
R333	1-249-421-11	CARBON	2.2K 5% 1/4W	R1023	1-249-433-11	CARBON	22K 5% 1/4W
R334	1-249-421-11	CARBON	2.2K 5% 1/4W	R1024	1-249-433-11	CARBON	22K 5% 1/4W
R335	1-249-420-11	CARBON	1.8K 5% 1/4W	R1025	1-249-433-11	CARBON	22K 5% 1/4W
R336	1-249-420-11	CARBON	1.8K 5% 1/4W	R1026	1-249-433-11	CARBON	22K 5% 1/4W
R337	1-249-426-11	CARBON	5.6K 5% 1/4W	R1027	1-249-433-11	CARBON	22K 5% 1/4W (A30K)
R338	1-249-426-11	CARBON	5.6K 5% 1/4W	R1028	1-249-433-11	CARBON	22K 5% 1/4W (A30K)
R361	1-249-437-11	CARBON	47K 5% 1/4W	R1029	1-249-433-11	CARBON	22K 5% 1/4W
R362	1-249-437-11	CARBON	47K 5% 1/4W	R1030	1-249-433-11	CARBON	22K 5% 1/4W
R501	1-249-417-11	CARBON	1K 5% 1/4W	R1031	1-249-433-11	CARBON	22K 5% 1/4W
R502	1-249-417-11	CARBON	1K 5% 1/4W	R1032	1-249-433-11	CARBON	22K 5% 1/4W
R503	1-249-417-11	CARBON	1K 5% 1/4W	R1052	1-249-417-11	CARBON	1K 5% 1/4W
R504	1-249-417-11	CARBON	1K 5% 1/4W	R1053	1-249-441-11	CARBON	100K 5% 1/4W
R505	1-249-429-11	CARBON	10K 5% 1/4W	R1054	1-249-416-11	CARBON	820 5% 1/4W
R506	1-249-417-11	CARBON	1K 5% 1/4W	R1055	1-247-897-11	CARBON	560K 5% 1/4W
R510	1-249-401-11	CARBON	47 5% 1/4W	R1056	1-249-437-11	CARBON	47K 5% 1/4W
R511	1-249-429-11	CARBON	10K 5% 1/4W	R1057	1-249-409-11	CARBON	220 5% 1/4W
R512	1-249-425-11	CARBON	4.7K 5% 1/4W	R1058	1-249-441-11	CARBON	100K 5% 1/4W
R513	1-249-417-11	CARBON	1K 5% 1/4W	R1059	1-249-409-11	CARBON	220 5% 1/4W
R514	1-249-429-11	CARBON	10K 5% 1/4W	R1060	1-249-421-11	CARBON	2.2K 5% 1/4W
R515	1-249-417-11	CARBON	1K 5% 1/4W	R1061	1-249-428-11	CARBON	8.2K 5% 1/4W
R521	1-249-423-11	CARBON	3.3K 5% 1/4W	R1062	1-249-417-11	CARBON	1K 5% 1/4W
R522	1-249-425-11	CARBON	4.7K 5% 1/4W	R1063	1-249-441-11	CARBON	100K 5% 1/4W
R523	1-249-414-11	CARBON	560 5% 1/4W	R1064	1-249-437-11	CARBON	47K 5% 1/4W
R524	1-249-417-11	CARBON	1K 5% 1/4W	R1065	1-249-437-11	CARBON	47K 5% 1/4W
R525	1-249-410-11	CARBON	270 5% 1/4W	R1066	1-249-437-11	CARBON	47K 5% 1/4W
R526	1-249-421-11	CARBON	2.2K 5% 1/4W	R1067	1-249-434-11	CARBON	27K 5% 1/4W
R527	1-249-425-11	CARBON	4.7K 5% 1/4W	R1068	1-249-429-11	CARBON	10K 5% 1/4W
R528	1-249-425-11	CARBON	4.7K 5% 1/4W	R1101	1-249-441-11	CARBON	100K 5% 1/4W
R529	1-249-405-11	CARBON	100 5% 1/4W	R1102	1-249-417-11	CARBON	1K 5% 1/4W
R530	1-249-405-11	CARBON	100 5% 1/4W	R1103	1-249-441-11	CARBON	100K 5% 1/4W
R1002	1-249-417-11	CARBON	1K 5% 1/4W	R1104	1-249-429-11	CARBON	10K 5% 1/4W
R1003	1-249-441-11	CARBON	100K 5% 1/4W	R1105	1-249-427-11	CARBON	6.8K 5% 1/4W
R1004	1-249-416-11	CARBON	820 5% 1/4W	R1106	1-249-412-11	CARBON	390 5% 1/4W
R1005	1-247-897-11	CARBON	560K 5% 1/4W	R1107	1-249-423-11	CARBON	3.3K 5% 1/4W
R1006	1-249-437-11	CARBON	47K 5% 1/4W	R1108	1-249-441-11	CARBON	100K 5% 1/4W
R1007	1-249-409-11	CARBON	220 5% 1/4W	R1109	1-249-427-11	CARBON	6.8K 5% 1/4W
R1008	1-249-441-11	CARBON	100K 5% 1/4W	R1110	1-249-441-11	CARBON	100K 5% 1/4W
R1009	1-249-409-11	CARBON	220 5% 1/4W	R1111	1-249-431-11	CARBON	15K 5% 1/4W
R1010	1-249-421-11	CARBON	2.2K 5% 1/4W	R1112	1-249-423-11	CARBON	3.3K 5% 1/4W
R1011	1-249-428-11	CARBON	8.2K 5% 1/4W	R1113	1-249-429-11	CARBON	10K 5% 1/4W
R1012	1-249-417-11	CARBON	1K 5% 1/4W	R1114	1-249-435-11	CARBON	33K 5% 1/4W
R1013	1-249-441-11	CARBON	100K 5% 1/4W	R1115	1-249-432-11	CARBON	18K 5% 1/4W
R1014	1-249-437-11	CARBON	47K 5% 1/4W	R1116	1-249-433-11	CARBON	22K 5% 1/4W
R1015	1-249-437-11	CARBON	47K 5% 1/4W	R1117	1-249-433-11	CARBON	22K 5% 1/4W
R1016	1-249-437-11	CARBON	47K 5% 1/4W	R1118	1-249-433-11	CARBON	22K 5% 1/4W
R1017	1-249-434-11	CARBON	27K 5% 1/4W	R1119	1-249-433-11	CARBON	22K 5% 1/4W
R1018	1-249-429-11	CARBON	10K 5% 1/4W	R1120	1-249-427-11	CARBON	6.8K 5% 1/4W
R1020	1-249-433-11	CARBON	22K 5% 1/4W	R1127	1-249-417-11	CARBON	1K 5% 1/4W

When indicating parts by reference number, please include the board name.

MAIN	POWER AMP
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R1128	1-249-417-11	CARBON	1K 5% 1/4W	< VIBRATOR >			
R1130	1-249-441-11	CARBON	100K 5% 1/4W	XT501	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)	
R1151	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R1152	1-249-417-11	CARBON	1K 5% 1/4W	*	A-4347-254-A	POWER AMP BOARD, COMPLETE	
R1153	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R1154	1-249-429-11	CARBON	10K 5% 1/4W	< CAPACITOR >			
R1155	1-249-427-11	CARBON	6.8K 5% 1/4W	C1201	1-124-925-11	ELECT 2.2uF 20% 100V	
R1156	1-249-412-11	CARBON	390 5% 1/4W	C1202	1-162-286-31	CERAMIC 220PF 10% 50V	
R1157	1-249-423-11	CARBON	3.3K 5% 1/4W	C1203	1-162-286-31	CERAMIC 220PF 10% 50V	
R1158	1-249-441-11	CARBON	100K 5% 1/4W	C1204	1-124-477-11	ELECT 47uF 20% 25V	
R1159	1-249-427-11	CARBON	6.8K 5% 1/4W	C1205	1-124-910-11	ELECT 47uF 20% 50V	
R1160	1-249-441-11	CARBON	100K 5% 1/4W	C1206	1-124-122-11	ELECT 100uF 20% 50V	
R1161	1-249-431-11	CARBON	15K 5% 1/4W	C1207	1-136-165-00	FILM 0.1uF 5% 50V	
R1162	1-249-423-11	CARBON	3.3K 5% 1/4W	C1208	1-126-233-11	ELECT 22uF 20% 50V	
R1170	1-249-427-11	CARBON	6.8K 5% 1/4W	C1209	1-136-165-00	FILM 0.1uF 5% 50V	
R1180	1-249-441-11	CARBON	100K 5% 1/4W	C1210	1-136-163-00	FILM 0.068uF 5% 50V	
R1222	1-249-416-11	CARBON	820 5% 1/4W	C1211	1-136-163-00	FILM 0.068uF 5% 50V	
R1223	1-249-416-11	CARBON	820 5% 1/4W	C1220	1-124-910-11	ELECT 47uF 20% 50V	
△R1226	1-215-916-00	METAL OXIDE	680 5% 3W (F)	C1251	1-124-925-11	ELECT 2.2uF 20% 100V	
R1233	1-249-434-11	CARBON	27K 5% 1/4W	C1252	1-162-286-31	CERAMIC 220PF 10% 50V	
R1234	1-249-434-11	CARBON	27K 5% 1/4W	C1253	1-162-286-31	CERAMIC 220PF 10% 50V	
R1235	1-249-435-11	CARBON	33K 5% 1/4W	C1254	1-124-477-11	ELECT 47uF 20% 25V	
R1236	1-249-441-11	CARBON	100K 5% 1/4W	C1255	1-124-910-11	ELECT 47uF 20% 50V	
R1237	1-249-429-11	CARBON	10K 5% 1/4W	C1256	1-124-122-11	ELECT 100uF 20% 50V	
R1240	1-249-438-11	CARBON	56K 5% 1/4W	C1257	1-136-165-00	FILM 0.1uF 5% 50V	
R1272	1-249-416-11	CARBON	820 5% 1/4W	C1260	1-136-163-00	FILM 0.068uF 5% 50V	
R1273	1-249-416-11	CARBON	820 5% 1/4W	C1261	1-136-163-00	FILM 0.068uF 5% 50V	
R1290	1-249-437-11	CARBON	47K 5% 1/4W	< DIODE >			
R1301	1-249-431-11	CARBON	15K 5% 1/4W	D1201	8-719-987-63	DIODE 1N4148M	
R1302	1-249-431-11	CARBON	15K 5% 1/4W	D1251	8-719-987-63	DIODE 1N4148M	
R1303	1-249-421-11	CARBON	2.2K 5% 1/4W	< IC >			
< VARIABLE RESISTOR >				IC1201	8-749-920-10	IC STK-4172-2	
RV301	1-238-601-11	RES, ADJ, CARBON, 22K (AM TUNED)		< COIL >			
RV302	1-238-601-11	RES, ADJ, CARBON, 22K (FM TUNED)		L1201	1-420-872-00	COIL, AIR CORE	
< RELAY >				L1251	1-420-872-00	COIL, AIR CORE	
RY1201	1-515-533-11	RELAY		< TRANSISTOR >			
< TRANSFORMER >				Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR		Q1202	8-729-900-80	TRANSISTOR DTC114ES	
< TERMINAL >				Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
* TM301	1-537-264-11	TERMINAL BOARD (ANTENNA)		Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
TM1201	1-537-326-11	TERMINAL BOARD (SPEAKER)		< RESISTOR >			
< TEST PIN >				R1201	1-249-417-11	CARBON 1K 5% 1/4W	
* TP1	1-560-060-00	PIN, CONNECTOR 2P					

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

When indicating parts by reference number, please include the board name.

PANEL

Ref.No.	Part No.	Description	Remarks
C604	1-124-907-11	ELECT 10uF 20% 50V	
C605	1-126-233-11	ELECT 22uF 20% 50V	
C606	1-102-951-00	CERAMIC 15PF 5% 50V	
C607	1-102-949-00	CERAMIC 12PF 5% 50V	
C608	1-124-927-11	ELECT 4.7uF 20% 100V	
C609	1-136-153-00	FILM 0.01uF 5% 50V	
C610	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C650	1-124-907-11	ELECT 10uF 20% 50V	
C1401	1-136-165-00	FILM 0.1uF 5% 50V	
C1402	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C1403	1-126-101-11	ELECT 100uF 20% 16V	
C1404	1-161-494-00	CERAMIC 0.022uF 25V	
C1405	1-125-486-11	DOUBLE LAYERS 0.22F 5.5V	
C1406	1-126-096-11	ELECT 10uF 20% 35V	
C1407	1-126-096-11	ELECT 10uF 20% 35V	
C1408	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C1409	1-161-494-00	CERAMIC 0.022uF 25V	
C1410	1-126-101-11	ELECT 100uF 20% 16V	
C1411	1-161-494-00	CERAMIC 0.022uF 25V	
C1412	1-124-907-11	ELECT 10uF 20% 50V	
C1413	1-161-494-00	CERAMIC 0.022uF 25V	
C1414	1-124-907-11	ELECT 10uF 20% 50V	
C1415	1-162-294-31	CERAMIC 0.001uF 10% 50V	

< FILTER >

CF1401 1-567-775-11 VIBRATOR, CERAMIC

< CONNECTOR >

* CN601 1-568-830-11 SOCKET, CONNECTOR 11P
 * CN1401 1-568-836-11 SOCKET, CONNECTOR 17P
 CN1402 1-568-802-11 SOCKET, CONNECTOR 19P

< COMPOSITION CIRCUIT BLOCK >

CP1401 1-239-054-11 COMPOSITION CIRCUIT BLOCK
 CP1402 1-239-054-11 COMPOSITION CIRCUIT BLOCK

< DIODE >

D601	8-719-987-63	DIODE 1N4148M
D602	8-719-987-63	DIODE 1N4148M
D603	8-719-987-63	DIODE 1N4148M
D604	8-719-987-63	DIODE 1N4148M
D605	8-719-987-63	DIODE 1N4148M
D606	8-719-987-63	DIODE 1N4148M
D608	8-719-987-63	DIODE 1N4148M
D609	8-719-987-63	DIODE 1N4148M
D610	8-719-987-63	DIODE 1N4148M
D612	8-719-987-63	DIODE 1N4148M
D613	8-719-987-63	DIODE 1N4148M
D614	8-719-987-63	DIODE 1N4148M

Ref.No.	Part No.	Description	Remarks
D615	8-719-987-63	DIODE 1N4148M	
D616	8-719-987-63	DIODE 1N4148M	
D617	8-719-987-63	DIODE 1N4148M	
D618	8-719-987-63	DIODE 1N4148M	
D619	8-719-987-63	DIODE 1N4148M	
D620	8-719-987-63	DIODE 1N4148M	
D621	8-719-987-63	DIODE 1N4148M	
D1401	8-719-987-63	DIODE 1N4148M	
D1402	8-719-987-63	DIODE 1N4148M	
D1403	8-719-987-63	DIODE 1N4148M	
D1404	8-719-987-63	DIODE 1N4148M	
D1405	8-719-987-63	DIODE 1N4148M	
D1406	8-719-987-63	DIODE 1N4148M	
D1407	8-719-987-63	DIODE 1N4148M	
D1408	8-719-987-63	DIODE 1N4148M	
D1409	8-719-987-63	DIODE 1N4148M	
D1410	8-719-987-63	DIODE 1N4148M	
D1411	8-719-987-63	DIODE 1N4148M	
D1412	8-719-933-36	DIODE HZS6B1L	
D1413	8-719-933-36	DIODE HZS6B1L	
D1414	8-719-987-63	DIODE 1N4148M	
D1415	8-719-987-63	DIODE 1N4148M	
D1416	8-719-987-63	DIODE 1N4148M	
D1417	8-719-987-63	DIODE 1N4148M	
D1418	8-719-987-63	DIODE 1N4148M	
D1419	8-719-987-63	DIODE 1N4148M	
D1420	8-719-987-63	DIODE 1N4148M	
D1421	8-719-302-45	LED SEL1210S (1)	
D1422	8-719-302-45	LED SEL1210S (2)	
D1423	8-719-302-45	LED SEL1210S (3)	
D1424	8-719-302-45	LED SEL1210S (4)	
D1425	8-719-302-45	LED SEL1210S (5)	
D1426	8-719-301-38	LED SEL2210S-C (MEMORY)	
D1427	8-719-301-38	LED SEL2210S-C (PERSONAL)	
D1428	8-719-301-38	LED SEL2210S-C (HIGH)	SURRE.
D1429	8-719-301-38	LED SEL2210S-C (MID)	
D1430	8-719-301-38	LED SEL2210S-C (LOW)	
D1431	8-719-301-38	LED SEL2210S-C (OFF)	
D1432	8-719-301-38	LED SEL2210S-C (HIGH)	DBFB
D1433	8-719-301-38	LED SEL2210S-C (MID)	
D1434	8-719-301-38	LED SEL2210S-C (LOW)	
D1435	8-719-301-38	LED SEL2210S-C (OFF)	
D1436	8-719-301-38	LED SEL2210S-C (EFFECT)	
D1437	8-719-302-45	LED SEL1210S (VIDEO)	
D1438	8-719-302-45	LED SEL1210S (TAPE)	
D1439	8-719-302-45	LED SEL1210S (CD)	
D1440	8-719-302-45	LED SEL1210S (TUNER)	
D1441	8-719-302-45	LED SEL1210S (PHONO)	
D1442	8-719-301-38	LED SEL2210S-C (VOL)	

When indicating parts by reference number, please include the board name.

PANEL

Ref. No.	Part No.	Description	Remarks
D1443	8-719-301-38	LED SEL2210S-C (EQ. REC)	
D1444	8-719-301-38	LED SEL2210S-C (MULTIPLEX) (A30K)	

< FILTER >

FL601	1-519-732-11	INDICATOR TUBE, FLUORESCENT	
FL1401	1-519-648-21	INDICATOR TUBE, FLUORESCENT	

< IC >

IC601	8-759-053-98	IC TMP47C1270N-SOX1029	
IC602	8-749-920-83	IC GPIU52XB	
IC1106	8-759-820-62	IC LB1639	
IC1401	8-759-153-68	IC uPD75106GF-761-3BE	
IC1402	8-759-820-59	IC LC7565	

IC1403	8-759-991-11	IC XR1091DCP	
IC1404	8-759-635-63	IC M51943BSL	

< COIL >

L601	1-410-521-11	INDUCTOR 100uH	
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< TRANSISTOR >

Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1102	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Q1402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1404	8-729-900-61	TRANSISTOR DTA114ES	
Q1405	8-729-900-80	TRANSISTOR DTC114ES	
Q1406	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Q1407	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1411	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Q1412	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1413	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1414	8-729-119-78	TRANSISTOR 2SC2785-HFE	

< RESISTOR >

R601	1-249-405-11	CARBON 100 5% 1/4W	
R602	1-249-417-11	CARBON 1K 5% 1/4W	
R603	1-249-429-11	CARBON 10K 5% 1/4W	
R604	1-249-425-11	CARBON 4.7K 5% 1/4W	
R605	1-249-441-11	CARBON 100K 5% 1/4W	

R606	1-249-405-11	CARBON 100 5% 1/4W	
R607	1-249-409-11	CARBON 220 5% 1/4W	
R608	1-249-409-11	CARBON 220 5% 1/4W	
R609	1-249-409-11	CARBON 220 5% 1/4W	

Ref. No.	Part No.	Description	Remarks
R610	1-249-409-11	CARBON 220 5% 1/4W	
R611	1-249-421-11	CARBON 2.2K 5% 1/4W	
R612	1-249-423-11	CARBON 3.3K 5% 1/4W	
R613	1-249-441-11	CARBON 100K 5% 1/4W	
R614	1-249-441-11	CARBON 100K 5% 1/4W	

R615	1-249-441-11	CARBON 100K 5% 1/4W	
R616	1-249-429-11	CARBON 10K 5% 1/4W	
R617	1-249-433-11	CARBON 22K 5% 1/4W	
R618	1-249-425-11	CARBON 4.7K 5% 1/4W	
R619	1-249-429-11	CARBON 10K 5% 1/4W	

R620	1-249-429-11	CARBON 10K 5% 1/4W	
R621	1-249-429-11	CARBON 10K 5% 1/4W	
R622	1-249-429-11	CARBON 10K 5% 1/4W	
R623	1-249-429-11	CARBON 10K 5% 1/4W	
R624	1-249-429-11	CARBON 10K 5% 1/4W	

R625	1-249-429-11	CARBON 10K 5% 1/4W	
R626	1-249-429-11	CARBON 10K 5% 1/4W	
R627	1-249-429-11	CARBON 10K 5% 1/4W	
R628	1-249-429-11	CARBON 10K 5% 1/4W	
R629	1-249-429-11	CARBON 10K 5% 1/4W	

R630	1-249-429-11	CARBON 10K 5% 1/4W	
R631	1-249-429-11	CARBON 10K 5% 1/4W	
R632	1-249-429-11	CARBON 10K 5% 1/4W	
R633	1-249-429-11	CARBON 10K 5% 1/4W	
R634	1-249-429-11	CARBON 10K 5% 1/4W	

R635	1-249-429-11	CARBON 10K 5% 1/4W	
R1122	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1123	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1124	1-249-433-11	CARBON 22K 5% 1/4W	
R1125	1-249-433-11	CARBON 22K 5% 1/4W	

R1126	1-249-433-11	CARBON 22K 5% 1/4W	
R1172	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1173	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1401	1-249-417-11	CARBON 1K 5% 1/4W	
R1402	1-249-435-11	CARBON 33K 5% 1/4W	

R1403	1-249-429-11	CARBON 10K 5% 1/4W	
R1404	1-249-437-11	CARBON 47K 5% 1/4W	
R1405	1-249-405-11	CARBON 100 5% 1/4W	
R1406	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1407	1-249-437-11	CARBON 47K 5% 1/4W	

R1408	1-249-437-11	CARBON 47K 5% 1/4W	
R1409	1-249-437-11	CARBON 47K 5% 1/4W	
R1410	1-249-437-11	CARBON 47K 5% 1/4W	
R1412	1-249-441-11	CARBON 100K 5% 1/4W	
R1413	1-249-417-11	CARBON 1K 5% 1/4W	

R1414	1-249-417-11	CARBON 1K 5% 1/4W	
R1422	1-249-417-11	CARBON 1K 5% 1/4W	
R1423	1-249-437-11	CARBON 47K 5% 1/4W	
R1424	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1425	1-249-437-11	CARBON 47K 5% 1/4W	

When indicating parts by reference number, please include the board name.

PANEL

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R1426	1-249-437-11	CARBON	47K 5% 1/4W	RV1101	1-241-352-11	RES. VAR. CARBON 100K/100K (BALANCE)	
R1427	1-249-437-11	CARBON	47K 5% 1/4W			< SWITCH >	
R1428	1-249-437-11	CARBON	47K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (1)	
R1429	1-247-891-00	CARBON	330K 5% 1/4W	S602	1-554-303-21	SWITCH, TACTILE (2)	
R1430	1-247-891-00	CARBON	330K 5% 1/4W	S603	1-554-303-21	SWITCH, TACTILE (3)	
R1431	1-249-432-11	CARBON	18K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (4)	
R1432	1-249-427-11	CARBON	6.8K 5% 1/4W	S605	1-554-303-21	SWITCH, TACTILE (5)	
R1433	1-249-427-11	CARBON	6.8K 5% 1/4W	S606	1-554-303-21	SWITCH, TACTILE (6)	
R1434	1-249-435-11	CARBON	33K 5% 1/4W	S607	1-554-303-21	SWITCH, TACTILE (7)	
R1435	1-249-435-11	CARBON	33K 5% 1/4W	S608	1-554-303-21	SWITCH, TACTILE (8)	
R1436	1-249-419-11	CARBON	1.5K 5% 1/4W	S609	1-554-303-21	SWITCH, TACTILE (9)	
R1437	1-249-405-11	CARBON	100 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (0)	
R1438	1-249-405-11	CARBON	100 5% 1/4W	S611	1-554-303-21	SWITCH, TACTILE (UP)	
R1439	1-249-425-11	CARBON	4.7K 5% 1/4W	S612	1-554-303-21	SWITCH, TACTILE (DOWN)	
R1440	1-249-404-00	CARBON	82 5% 1/4W	S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1441	1-249-425-11	CARBON	4.7K 5% 1/4W	S614	1-554-303-21	SWITCH, TACTILE (BAND)	
R1442	1-249-404-00	CARBON	82 5% 1/4W	S615	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1443	1-249-425-11	CARBON	4.7K 5% 1/4W	S616	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1444	1-249-404-00	CARBON	82 5% 1/4W	S617	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1445	1-249-425-11	CARBON	4.7K 5% 1/4W	S618	1-554-303-21	SWITCH, TACTILE (NEXT)	
R1446	1-249-404-00	CARBON	82 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1447	1-249-425-11	CARBON	4.7K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1448	1-249-404-00	CARBON	82 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (TIMER CONTROL)	
R1449	1-249-425-11	CARBON	4.7K 5% 1/4W	S622	1-554-303-21	SWITCH, TACTILE (CLEAR)	
R1450	1-249-404-00	CARBON	82 5% 1/4W	S623	1-554-303-21	SWITCH, TACTILE (BACK)	
R1451	1-249-425-11	CARBON	4.7K 5% 1/4W	S624	1-554-303-21	SWITCH, TACTILE (POWER)	
R1452	1-249-404-00	CARBON	82 5% 1/4W	S625	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1453	1-249-425-11	CARBON	4.7K 5% 1/4W	S626	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
R1454	1-249-437-11	CARBON	47K 5% 1/4W	S627	1-554-303-21	SWITCH, TACTILE (TIMER MODE)	
R1455	1-249-414-11	CARBON	560 5% 1/4W	S628	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1456	1-249-414-11	CARBON	560 5% 1/4W	S1401	1-554-303-21	SWITCH, TACTILE (PHONO)	
R1457	1-249-414-11	CARBON	560 5% 1/4W	S1402	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1458	1-249-414-11	CARBON	560 5% 1/4W	S1403	1-554-303-21	SWITCH, TACTILE (CD)	
R1459	1-249-414-11	CARBON	560 5% 1/4W	S1404	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1460	1-249-414-11	CARBON	560 5% 1/4W	S1405	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1461	1-249-414-11	CARBON	560 5% 1/4W	S1406	1-554-303-21	SWITCH, TACTILE (EQ REC)	
R1462	1-249-414-11	CARBON	560 5% 1/4W	S1407	1-554-303-21	SWITCH, TACTILE (>)	
R1463	1-249-411-11	CARBON	330 5% 1/4W	S1408	1-554-303-21	SWITCH, TACTILE (<)	
R1464	1-249-410-11	CARBON	270 5% 1/4W	S1409	1-554-303-21	SWITCH, TACTILE (1)	
R1465	1-249-410-11	CARBON	270 5% 1/4W	S1410	1-554-303-21	SWITCH, TACTILE (2)	
R1466	1-249-410-11	CARBON	270 5% 1/4W	S1411	1-554-303-21	SWITCH, TACTILE (SURR.)	
R1467	1-249-410-11	CARBON	270 5% 1/4W	S1412	1-554-303-21	SWITCH, TACTILE (DBFB)	
R1468	1-249-410-11	CARBON	270 5% 1/4W	S1413	1-554-303-21	SWITCH, TACTILE (>)	
R1469	1-249-411-11	CARBON	330 5% 1/4W	S1414	1-554-303-21	SWITCH, TACTILE (<)	
R1470	1-249-413-11	CARBON	470 5% 1/4W	S1415	1-554-303-21	SWITCH, TACTILE (5)	
R1471	1-249-413-11	CARBON	470 5% 1/4W (A30K)	S1416	1-554-303-21	SWITCH, TACTILE (4)	
R1472	1-249-433-11	CARBON	22K 5% 1/4W	S1417	1-554-303-21	SWITCH, TACTILE (3)	
R1480	1-249-417-11	CARBON	1K 5% 1/4W	S1418	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
< VARIABLE RESISTOR >							

When indicating parts by reference number, please include the board name.

PANEL	H.P	VOL	MIC	POWER
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Ref.No.	Part No.	Description	Remarks
S1419	1-554-303-21	SWITCH, TACTILE (EFFECT)	
S1420	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S1421	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S1422	1-554-303-21	SWITCH, TACTILE (PERSONAL)	
S1423	1-554-303-21	SWITCH, TACTILE (MULTIPLEX) (A30K)	
< VIBRATOR >			
X601	1-579-564-11	VIBRATOR, CRYSTAL (8.388608MHz)	

*	1-642-384-11	H. P. BOARD	

< CONNECTOR >			
CN1202	1-691-003-11	JACK, LARGE TYPE	

*	1-642-385-11	VOL. BOARD	

< CAPACITOR >			
C1141	1-161-379-00	CERAMIC 0.01uF 20% 25V	
< VARIABLE RESISTOR >			
RV1102	1-241-350-11	RES. VAR, CARBON 100K/100K (VOLUME)	

*	1-642-386-11	MIC BOARD (A30)	

< CAPACITOR >			
C1601	1-124-925-11	ELECT 2.2uF 20% 100V (A30)	
C1602	1-162-294-31	CERAMIC 0.001uF 10% 50V (A30)	
C1603	1-162-219-31	CERAMIC 68PF 5% 50V (A30)	
C1604	1-162-284-31	CERAMIC 150PF 10% 50V (A30)	
C1605	1-124-464-11	ELECT 0.22uF 20% 50V (A30)	
C1606	1-124-477-11	ELECT 47uF 20% 25V (A30)	
C1607	1-124-477-11	ELECT 47uF 20% 25V (A30)	
< CONNECTOR >			
* CN1601	1-691-002-21	JACK, LARGE TYPE (MIC) (A30)	
< IC >			
IC1601	8-759-634-51	IC M5218AP (A30)	
< RESISTOR >			
R1601	1-249-429-11	CARBON 10K 5% 1/4W (A30)	
R1602	1-249-417-11	CARBON 1K 5% 1/4W (A30)	
R1603	1-249-441-11	CARBON 100K 5% 1/4W (A30)	
R1604	1-249-412-11	CARBON 390 5% 1/4W (A30)	

Ref.No.	Part No.	Description	Remarks
R1605	1-249-441-11	CARBON 100K 5% 1/4W (A30)	
R1606	1-249-417-11	CARBON 1K 5% 1/4W (A30)	
R1607	1-249-429-11	CARBON 10K 5% 1/4W (A30)	

*	A-4347-250-A	POWER BOARD, COMPLETE	

*	1-560-595-00	TERMINAL (WITH BASE)	
*	1-564-321-00	PIN, CONNECTOR 2P	
*	1-639-097-11	POWER BOARD	
*	1-639-098-12	FUSE BOARD	
< CAPACITOR >			
C1301	1-161-744-00	CERAMIC 0.01uF 400V	
C1330	1-136-165-00	FILM 0.1uF 5% 50V	
C1331	1-124-360-00	ELECT 1000uF 20% 16V	
C1332	1-124-463-00	ELECT 0.1uF 20% 50V	
C1333	1-124-907-11	ELECT 10uF 20% 50V	
C1335	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C1336	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C1337	1-124-907-11	ELECT 10uF 20% 50V	
C1338	1-124-122-11	ELECT 100uF 20% 50V	
C1339	1-124-907-11	ELECT 10uF 20% 50V	
C1340	1-124-910-11	ELECT 47uF 20% 50V	
C1345	1-124-477-11	ELECT 47uF 20% 25V	
< CONNECTOR >			
△CN1301	1-575-653-11	CORD, POWER (E2, E3)	
△CN1301	1-690-608-11	CORD, POWER (WITH CONNECTOR) (AUS)	
△CN1302	1-526-882-00	OUTLET, AC (E2, E3)	
△CN1302	1-540-192-11	OUTLET, AC (AUS)	
< DIODE >			
D1301	8-719-987-63	DIODE 1N4148M	
D1302	8-719-987-63	DIODE 1N4148M	
D1317	8-719-200-82	DIODE 11ES2	
D1318	8-719-200-82	DIODE 11ES2	
D1319	8-719-200-82	DIODE 11ES2	
D1320	8-719-200-82	DIODE 11ES2	
D1321	8-719-987-63	DIODE 1N4148M	
D1322	8-719-200-82	DIODE 11ES2	
D1323	8-719-002-60	DIODE UZL-33L	
D1324	8-719-014-66	DIODE UZP-5.6B	
D1330	8-719-987-63	DIODE 1N4148M	
< FUSE >			
△F1302	1-532-299-11	FUSE (5.0A)	
△F1303	1-532-299-11	FUSE (5.0A)	
△F1304	1-532-203-11	FUSE (2.0A)	
△F1305	1-532-203-11	FUSE (2.0A)	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the part name.

POWER

TC SIGNAL

Ref. No.	Part No.	Description	Remarks
< IC >			
IC1305	8-759-820-13	IC L78MR06	
< TRANSISTOR >			
Q1302	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q1303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >			
△R1304	1-212-857-00	FUSIBLE 10 5% 1/4W F	
△R1305	1-212-934-00	FUSIBLE 1 5% 1/2W F	
R1306	1-249-417-11	CARBON 1K 5% 1/4W	
R1307	1-249-429-11	CARBON 10K 5% 1/4W	
R1308	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1309	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1310	1-249-433-11	CARBON 22K 5% 1/4W	
R1311	1-249-433-11	CARBON 22K 5% 1/4W	
< RELAY >			
RY1301	1-515-720-11	RELAY	
< TRANSFORMER >			
△T1301	1-450-484-11	TRANSFORMER, POWER	
△T1302	1-450-483-11	TRANSFORMER, POWER	
< SWITCH >			
VS1301	1-572-266-11	SWITCH, VOLTAGE SELECTION	

*	A-4347-241-A	TC SIGNAL BOARD, COMPLETE	

< CAPACITOR >			
C701	1-136-157-00	FILM 0.022uF 5% 50V	
C702	1-126-301-11	ELECT 1uF 20% 50V	
C703	1-162-215-31	CERAMIC 47PF 5% 50V	
C704	1-162-288-31	CERAMIC 330PF 10% 50V	
C705	1-131-587-11	TANTALUM 0.68uF 5% 35V	
C706	1-124-907-11	ELECT 10uF 20% 50V	
C707	1-124-902-00	ELECT 0.47uF 20% 50V	
C708	1-124-907-11	ELECT 10uF 20% 50V	
C709	1-124-925-11	ELECT 2.2uF 20% 100V	
C710	1-124-907-11	ELECT 10uF 20% 50V	
C751	1-136-157-00	FILM 0.022uF 5% 50V	
C752	1-126-301-11	ELECT 1uF 20% 50V	
C753	1-162-215-31	CERAMIC 47PF 5% 50V	
C754	1-162-288-31	CERAMIC 330PF 10% 50V	
C755	1-131-587-11	TANTALUM 0.68uF 5% 35V	

Ref. No.	Part No.	Description	Remarks
C756	1-124-907-11	ELECT 10uF 20% 50V	
C757	1-124-902-00	ELECT 0.47uF 20% 50V	
C758	1-124-907-11	ELECT 10uF 20% 50V	
C759	1-124-925-11	ELECT 2.2uF 20% 100V	
C760	1-124-907-11	ELECT 10uF 20% 50V	
C801	1-124-903-11	ELECT 1uF 20% 50V	
C802	1-161-494-00	CERAMIC 0.022uF 25V	
C803	1-124-925-11	ELECT 2.2uF 20% 100V	
C804	1-124-443-00	ELECT 100uF 20% 10V	
C805	1-124-443-00	ELECT 100uF 20% 10V	
C806	1-124-907-11	ELECT 10uF 20% 50V	
C807	1-124-443-00	ELECT 100uF 20% 10V	
C808	1-124-443-00	ELECT 100uF 20% 10V	
C901	1-124-907-11	ELECT 10uF 20% 50V	
C902	1-136-165-00	FILM 0.1uF 5% 50V	
C903	1-136-165-00	FILM 0.1uF 5% 50V	
C904	1-124-903-11	ELECT 1uF 20% 50V	
C905	1-162-288-31	CERAMIC 330PF 10% 50V	
C906	1-162-288-31	CERAMIC 330PF 10% 50V	
< CONNECTOR >			
* CN901	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN902	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN903	1-568-854-11	SOCKET, CONNECTOR 11P	
CN904	1-506-469-11	CONNECTOR 4P, MALE	
* CN905	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN906	1-564-508-11	PLUG, CONNECTOR 5P	
CN907	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN908	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN909	1-580-783-11	CONNECTOR, BOARD TO BOARD	
< CONNECTOR >			
* CNP801	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
* CNP901	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
< DIODE >			
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-933-50	DIODE HZS7C2L	
D803	8-719-933-50	DIODE HZS7C2L	
D804	8-719-001-18	DIODE UZL-9M3	
D805	8-719-933-50	DIODE HZS7C2L	
D901	8-719-987-63	DIODE 1N4148M	
D902	8-719-987-63	DIODE 1N4148M	
< IC >			
IC801	8-759-634-51	IC M5218AP	
IC802	8-759-000-49	IC MC1406BCP	
IC803	8-759-140-53	IC uPD4053BC	
IC804	8-759-634-51	IC M5218AP	
IC805	8-752-057-21	IC CXA1100P	

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TC SIGNAL

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
IC806	8-752-060-64	IC CXA1198AP		R717	1-249-421-11	CARBON	2. 2K 5% 1/4W
IC807	8-759-000-48	IC MC14052BCP		R751	1-249-421-11	CARBON	2. 2K 5% 1/4W
IC901	8-759-207-05	IC TA7272P		R752	1-249-423-11	CARBON	3. 3K 5% 1/4W
IC902	8-759-636-69	IC M50964-251FP		R753	1-247-887-00	CARBON	220K 5% 1/4W
< TRANSISTOR >				R754	1-249-429-11	CARBON	10K 5% 1/4W
Q701	8-729-900-74	TRANSISTOR DTC143TS		R755	1-249-441-11	CARBON	100K 5% 1/4W
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		R756	1-249-421-11	CARBON	2. 2K 5% 1/4W
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE		R757	1-249-439-11	CARBON	68K 5% 1/4W
Q751	8-729-900-74	TRANSISTOR DTC143TS		R758	1-249-434-11	CARBON	27K 5% 1/4W
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE		R759	1-249-419-11	CARBON	1. 5K 5% 1/4W
Q753	8-729-119-78	TRANSISTOR 2SC2785-HFE		R760	1-249-425-11	CARBON	4. 7K 5% 1/4W
Q801	8-729-900-61	TRANSISTOR DTA114ES		R761	1-249-426-11	CARBON	5. 6K 5% 1/4W
Q802	8-729-900-61	TRANSISTOR DTA114ES		R762	1-249-425-11	CARBON	4. 7K 5% 1/4W
Q803	8-729-900-61	TRANSISTOR DTA114ES		R763	1-249-421-11	CARBON	2. 2K 5% 1/4W
Q804	8-729-904-39	TRANSISTOR DTC114TS		R764	1-249-421-11	CARBON	2. 2K 5% 1/4W
Q805	8-729-900-61	TRANSISTOR DTA114ES		R765	1-249-421-11	CARBON	2. 2K 5% 1/4W
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE		R766	1-249-425-11	CARBON	4. 7K 5% 1/4W
Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE		R767	1-249-421-11	CARBON	2. 2K 5% 1/4W
Q903	8-729-119-76	TRANSISTOR 2SA1175-HFE		R801	1-249-441-11	CARBON	100K 5% 1/4W
Q904	8-729-900-61	TRANSISTOR DTA114ES		R802	1-249-417-11	CARBON	1K 5% 1/4W
Q905	8-729-900-80	TRANSISTOR DTC114ES		R803	1-249-441-11	CARBON	100K 5% 1/4W
Q906	8-729-119-76	TRANSISTOR 2SA1175-HFE		R804	1-249-427-11	CARBON	6. 8K 5% 1/4W
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE		R805	1-249-413-11	CARBON	470 5% 1/4W
Q908	8-729-119-78	TRANSISTOR 2SC2785-HFE		R806	1-249-429-11	CARBON	10K 5% 1/4W
Q910	8-729-900-61	TRANSISTOR DTA114ES		R807	1-249-413-11	CARBON	470 5% 1/4W
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE		R808	1-247-870-11	CARBON	43K 5% 1/4W
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE		R809	1-249-431-11	CARBON	15K 5% 1/4W
Q913	8-729-900-61	TRANSISTOR DTA114ES		R810	1-215-460-00	METAL	43K 1% 1/6W
Q914	8-729-900-89	TRANSISTOR DTC144ES		R811	1-249-437-11	CARBON	47K 5% 1/4W
Q915	8-729-116-57	TRANSISTOR 2SB1068-K		R812	1-249-437-11	CARBON	47K 5% 1/4W
Q916	8-729-116-57	TRANSISTOR 2SB1068-K		R813	1-247-887-00	CARBON	220K 5% 1/4W
< RESISTOR >				R814	1-247-864-11	CARBON	24K 5% 1/4W
R701	1-249-421-11	CARBON	2. 2K 5% 1/4W	R815	1-249-405-11	CARBON	100 5% 1/4W
R702	1-249-423-11	CARBON	3. 3K 5% 1/4W	R816	1-249-405-11	CARBON	100 5% 1/4W
R703	1-247-887-00	CARBON	220K 5% 1/4W	R817	1-249-436-11	CARBON	39K 5% 1/4W
R704	1-249-429-11	CARBON	10K 5% 1/4W	R818	1-249-435-11	CARBON	33K 5% 1/4W
R705	1-249-441-11	CARBON	100K 5% 1/4W	R819	1-249-432-11	CARBON	18K 5% 1/4W
R706	1-249-421-11	CARBON	2. 2K 5% 1/4W	R820	1-247-878-00	CARBON	91K 5% 1/4W
R707	1-249-439-11	CARBON	68K 5% 1/4W	R821	1-247-881-00	CARBON	120K 5% 1/4W
R708	1-249-434-11	CARBON	27K 5% 1/4W	R822	1-249-437-11	CARBON	47K 5% 1/4W
R709	1-249-419-11	CARBON	1. 5K 5% 1/4W	R823	1-247-862-11	CARBON	20K 5% 1/4W
R710	1-249-425-11	CARBON	4. 7K 5% 1/4W	R824	1-247-868-11	CARBON	36K 5% 1/4W
R711	1-249-426-11	CARBON	5. 6K 5% 1/4W	R825	1-249-433-11	CARBON	22K 5% 1/4W
R712	1-249-425-11	CARBON	4. 7K 5% 1/4W	R826	1-247-876-11	CARBON	75K 5% 1/4W
R713	1-249-421-11	CARBON	2. 2K 5% 1/4W	R827	1-247-868-11	CARBON	36K 5% 1/4W
R714	1-249-421-11	CARBON	2. 2K 5% 1/4W	R828	1-247-878-00	CARBON	91K 5% 1/4W
R715	1-249-421-11	CARBON	2. 2K 5% 1/4W	R829	1-247-874-11	CARBON	62K 5% 1/4W
R716	1-249-425-11	CARBON	4. 7K 5% 1/4W	R830	1-249-437-11	CARBON	47K 5% 1/4W
				R831	1-249-433-11	CARBON	22K 5% 1/4W
				R832	1-247-878-00	CARBON	91K 5% 1/4W

When indicating parts by reference number, please include the board name.

TC SIGNAL

TC SW

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R833	1-247-881-00	CARBON	120K 5% 1/4W	R934	1-249-422-11	CARBON	2.7K 5% 1/4W
R834	1-247-876-11	CARBON	75K 5% 1/4W	R935	1-249-422-11	CARBON	2.7K 5% 1/4W
R835	1-247-868-11	CARBON	36K 5% 1/4W	R936	1-247-860-11	CARBON	16K 5% 1/4W
R836	1-249-438-11	CARBON	56K 5% 1/4W	R937	1-247-862-11	CARBON	20K 5% 1/4W
R837	1-249-432-11	CARBON	18K 5% 1/4W	R938	1-249-425-11	CARBON	4.7K 5% 1/4W
R838	1-249-434-11	CARBON	27K 5% 1/4W	R939	1-249-437-11	CARBON	47K 5% 1/4W
R839	1-249-440-11	CARBON	82K 5% 1/4W	R940	1-247-866-11	CARBON	30K 5% 1/4W
R840	1-249-440-11	CARBON	82K 5% 1/4W	R941	1-247-860-11	CARBON	16K 5% 1/4W
R841	1-249-417-11	CARBON	1K 5% 1/4W	R942	1-247-862-11	CARBON	20K 5% 1/4W
R842	1-249-409-11	CARBON	220 5% 1/4W	R943	1-249-425-11	CARBON	4.7K 5% 1/4W
R843	1-249-417-11	CARBON	1K 5% 1/4W	R944	1-249-437-11	CARBON	47K 5% 1/4W
R844	1-249-429-11	CARBON	10K 5% 1/4W	R945	1-247-866-11	CARBON	30K 5% 1/4W
R845	1-249-429-11	CARBON	10K 5% 1/4W	R946	1-247-872-11	CARBON	51K 5% 1/4W
R846	1-249-429-11	CARBON	10K 5% 1/4W	R947	1-247-872-11	CARBON	51K 5% 1/4W
R847	1-249-405-11	CARBON	100 5% 1/4W	R948	1-249-405-11	CARBON	100 5% 1/4W
R848	1-249-405-11	CARBON	100 5% 1/4W	R949	1-247-872-11	CARBON	51K 5% 1/4W
R849	1-249-425-11	CARBON	4.7K 5% 1/4W	R950	1-247-872-11	CARBON	51K 5% 1/4W
R850	1-249-429-11	CARBON	10K 5% 1/4W	R951	1-249-405-11	CARBON	100 5% 1/4W
R851	1-249-429-11	CARBON	10K 5% 1/4W	R952	1-249-415-11	CARBON	680 5% 1/4W
R901	1-249-412-11	CARBON	390 5% 1/4W	R953	1-249-415-11	CARBON	680 5% 1/4W
R902	1-249-412-11	CARBON	390 5% 1/4W	R954	1-249-429-11	CARBON	10K 5% 1/4W
R903	1-249-415-11	CARBON	680 5% 1/4W	R955	1-249-429-11	CARBON	10K 5% 1/4W
R904	1-249-415-11	CARBON	680 5% 1/4W	R971	1-249-429-11	CARBON	10K 5% 1/4W
R905	1-249-409-11	CARBON	220 5% 1/4W	R972	1-247-903-00	CARBON	1M 5% 1/4W
R906	1-249-416-11	CARBON	820 5% 1/4W	R973	1-249-417-11	CARBON	1K 5% 1/4W
R907	1-249-409-11	CARBON	220 5% 1/4W	R974	1-249-417-11	CARBON	1K 5% 1/4W
R908	1-249-412-11	CARBON	390 5% 1/4W	R975	1-249-429-11	CARBON	10K 5% 1/4W
R909	1-249-412-11	CARBON	390 5% 1/4W	< VARIABLE RESISTOR >			
R910	1-249-412-11	CARBON	390 5% 1/4W	RV701	1-241-136-11	RES. ADJ. CARBON 10K	
R911	1-247-820-11	CARBON	360 5% 1/4W	RV751	1-241-136-11	RES. ADJ. CARBON 10K	
R913	1-249-420-11	CARBON	1.8K 5% 1/4W	< VIBRATOR >			
R915	1-249-429-11	CARBON	10K 5% 1/4W	X901	1-577-358-21	VIBRATOR, CERAMIC	
R916	1-249-425-11	CARBON	4.7K 5% 1/4W	*****			
R917	1-249-417-11	CARBON	1K 5% 1/4W	* 1-642-152-11 TC SW BOARD			
R918	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R919	1-249-429-11	CARBON	10K 5% 1/4W	< RESISTOR >			
R920	1-249-441-11	CARBON	100K 5% 1/4W	R956	1-249-407-11	CARBON	150 5% 1/4W
R921	1-247-895-00	CARBON	470K 5% 1/4W	R957	1-249-409-11	CARBON	220 5% 1/4W
R922	1-247-895-00	CARBON	470K 5% 1/4W	R958	1-249-411-11	CARBON	330 5% 1/4W
R923	1-249-421-11	CARBON	2.2K 5% 1/4W	R959	1-249-413-11	CARBON	470 5% 1/4W
R924	1-249-421-11	CARBON	2.2K 5% 1/4W	R960	1-249-415-11	CARBON	680 5% 1/4W
R925	1-249-425-11	CARBON	4.7K 5% 1/4W	R961	1-249-417-11	CARBON	1K 5% 1/4W
R926	1-249-434-11	CARBON	27K 5% 1/4W	R962	1-249-420-11	CARBON	1.8K 5% 1/4W
R927	1-249-429-11	CARBON	10K 5% 1/4W	R963	1-249-407-11	CARBON	150 5% 1/4W
R928	1-249-429-11	CARBON	10K 5% 1/4W	R964	1-249-409-11	CARBON	220 5% 1/4W
R929	1-249-434-11	CARBON	27K 5% 1/4W	R965	1-249-411-11	CARBON	330 5% 1/4W
R930	1-249-429-11	CARBON	10K 5% 1/4W				
R931	1-249-429-11	CARBON	10K 5% 1/4W				
R932	1-249-429-11	CARBON	10K 5% 1/4W				
R933	1-249-422-11	CARBON	2.7K 5% 1/4W				

When indicating parts by reference number, please include the board name.

TC SW

DISPLAY

ECHO

Ref. No.	Part No.	Description	Remarks
R966	1-249-413-11	CARBON 470 5% 1/4W	
R967	1-249-415-11	CARBON 680 5% 1/4W	
R968	1-249-417-11	CARBON 1K 5% 1/4W	
R969	1-249-426-11	CARBON 5.6K 5% 1/4W	
R970	1-249-430-11	CARBON 12K 5% 1/4W	

< SWITCH >

S901	1-572-268-11	SWITCH, SLIDE (RELY)	
S902	1-572-269-11	SWITCH, SLIDE (DOLBY SW)	
S903	1-554-303-21	SWITCH, TACTILE (□) (DECK A)	
S904	1-554-303-21	SWITCH, TACTILE (▷) (DECK A)	
S905	1-554-303-21	SWITCH, TACTILE (◁) (DECK A)	

S906	1-554-303-21	SWITCH, TACTILE (◁◁) (DECK B)	
S907	1-554-303-21	SWITCH, TACTILE (▷▷) (DECK B)	
S908	1-554-303-21	SWITCH, TACTILE (○) (DECK B)	
S909	1-554-303-21	SWITCH, TACTILE (DUB H)	
S910	1-554-303-21	SWITCH, TACTILE (DUB N)	

S911	1-554-303-21	SWITCH, TACTILE (□) (DECK B)	
S912	1-554-303-21	SWITCH, TACTILE (□□) (DECK B)	
S913	1-554-303-21	SWITCH, TACTILE (▷) (DECK B)	
S914	1-554-303-21	SWITCH, TACTILE (◁) (DECK B)	
S915	1-554-303-21	SWITCH, TACTILE (●) (DECK B)	

S916	1-554-303-21	SWITCH, TACTILE (◁◁) (DECK A)	
S917	1-554-303-21	SWITCH, TACTILE (▷▷) (DECK A)	

* 1-642-153-11 DISPLAY BOARD

< CONNECTOR >

*CN903-2 1-568-854-11 SOCKET, CONNECTOR 11P

< DIODE >

D903	8-719-301-52	LED SEL2810A-C (◁) (DECK A)	
D904	8-719-301-52	LED SEL2810A-C (▷) (DECK A)	
D905	8-719-301-38	LED SEL2210S-C (DUB H)	
D906	8-719-301-38	LED SEL2210S-C (DUB N)	
D907	8-719-301-44	LED SEL2410E-D (PLAY) (DECK A)	

D908	8-719-301-38	LED SEL2210S-C (○) (DECK B)	
D909	8-719-301-44	LED SEL2410E-D (PLAY) (DECK B)	
D910	8-719-301-52	LED SEL2810A-C (□□) (DECK B)	
D911	8-719-301-52	LED SEL2810A-C (◁) (DECK B)	
D912	8-719-301-52	LED SEL2810A-C (▷) (DECK B)	

* A-4347-620-A ECHO BOARD, COMPLETE (A30K)

< CAPACITOR >

C1401	1-124-925-11	ELECT 2.2uF 20% 100V (A30K)	
C1402	1-126-101-11	ELECT 100uF 20% 16V (A30K)	

Ref. No.	Part No.	Description	Remarks
C1403	1-164-159-11	FILM 0.1uF 5% 50V (A30K)	
C1404	1-161-379-00	FILM 0.01uF 5% 50V (A30K)	
C1405	1-124-903-11	ELECT 1uF 20% 50V (A30K)	
C1406	1-130-480-00	MYLAR 0.0056uF 5% 50V (A30K)	
C1407	1-162-291-31	CERAMIC 560PF 10% 50V (A30K)	

C1408	1-164-159-11	FILM 0.1uF 5% 50V (A30K)	
C1409	1-164-159-11	FILM 0.1uF 5% 50V (A30K)	
C1410	1-164-159-11	FILM 0.1uF 5% 50V (A30K)	
C1411	1-124-910-11	ELECT 47uF 20% 50V (A30K)	
C1412	1-164-159-11	FILM 0.1uF 5% 50V (A30K)	

C1413	1-161-379-00	FILM 0.01uF 5% 50V (A30K)	
C1414	1-130-480-00	MYLAR 0.0056uF 5% 50V (A30K)	
C1415	1-124-903-11	ELECT 1uF 20% 50V (A30K)	
C1416	1-162-291-31	CERAMIC 560PF 10% 50V (A30K)	
C1417	1-124-903-11	ELECT 1uF 20% 50V (A30K)	

< CONNECTOR >

* CN1402 1-568-935-11 PIN, CONNECTOR 8P (A30K)
* CN1403 1-568-934-11 PIN, CONNECTOR 7P (A30K)

< DIODE >

D1401 8-719-987-63 DIODE 1N4148M

< IC >

IC1401 8-759-053-12 IC M65831P (A30K)

< COIL >

L1401 1-410-171-11 INDUCTOR 1mH (A30K)

< RESISTOR >

R1401	1-247-903-00	CARBON 1M 5% 1/4W (A30K)	
R1402	1-249-431-11	CARBON 15K 5% 1/4W (A30K)	
R1403	1-249-431-11	CARBON 15K 5% 1/4W (A30K)	
R1404	1-249-431-11	CARBON 15K 5% 1/4W (A30K)	
R1405	1-249-429-11	CARBON 10K 5% 1/4W (A30K)	

R1406	1-249-436-11	CARBON 39K 5% 1/4W (A30K)	
R1407	1-249-431-11	CARBON 15K 5% 1/4W (A30K)	
R1408	1-249-429-11	CARBON 10K 5% 1/4W (A30K)	
R1409	1-249-429-11	CARBON 10K 5% 1/4W (A30K)	

< VARIABLE RESISTOR >

RV1402 1-241-511-11 RES, VAR, CARBON 50K/50K
(ECHO LEVEL) (A30K)

< VIBRATOR >

X1401 1-577-358-21 VIBRATOR, SERAMIC (2.0MHz) (A30K)

When indicating parts by reference number, please include the load name.

MIC VOL

MIC JACK

Ref. No.	Part No.	Description	Remarks
*	1-643-814-11	MIC VOL BOARD (A30K)	

		< CAPACITOR >	
C1443	1-162-282-31	CERAMIC 100PF	10% 50V (A30K)
C1445	1-124-925-11	ELECT 2.2uF	20% 100V (A30K)
C1448	1-162-215-31	CERAMIC 47PF	5% 50V (A30K)
C1455	1-162-282-31	CERAMIC 100PF	10% 50V (A30K)
C1456	1-124-477-11	ELECT 47uF	20% 25V (A30K)
C1457	1-124-477-11	ELECT 47uF	20% 25V (A30K)
C1458	1-124-925-11	ELECT 2.2uF	20% 100V (A30K)
C1459	1-162-215-31	CERAMIC 47PF	5% 50V (A30K)
		< IC >	
IC1406	8-759-634-51	IC M5218AP (A30K)	
		< RESISTOR >	
R1443	1-249-429-11	CARBON 10K 5%	1/4W (A30K)
R1444	1-249-437-11	CARBON 47K 5%	1/4W (A30K)
R1445	1-249-436-11	CARBON 39K 5%	1/4W (A30K)
R1455	1-249-429-11	CARBON 10K 5%	1/4W (A30K)
R1456	1-249-434-11	CARBON 27K 5%	1/4W (A30K)
R1457	1-249-429-11	CARBON 10K 5%	1/4W (A30K)
		< VARIABLE RESISTOR >	
RV1401	1-241-903-11	RES. VAR. CARBON 50K (MIC 1 LEVEL) (A30K)	
RV1403	1-241-903-11	RES. VAR. CARBON 50K (MIC 2 LEVEL) (A30K)	

*	A-4347-621-A	MIC JACK BOARD, COMPLETE (A30K)	

*	1-643-815-11	MIC JACK BOARD (A30K)	
		< CAPACITOR >	
C1437	1-124-925-11	ELECT 2.2uF	20% 100V (A30K)
C1438	1-162-294-31	CERAMIC 0.001uF	10% 50V (A30K)
C1439	1-162-215-31	CERAMIC 47PF	5% 50V (A30K)
C1440	1-162-282-31	CERAMIC 100PF	10% 50V (A30K)
C1441	1-124-463-00	ELECT 0.1uF	20% 50V (A30K)
C1446	1-124-477-11	ELECT 47uF	20% 25V (A30K)
C1447	1-124-477-11	ELECT 47uF	20% 25V (A30K)
C1450	1-124-925-11	ELECT 2.2uF	20% 100V (A30K)
C1451	1-162-294-31	CERAMIC 0.001uF	10% 50V (A30K)
C1452	1-162-215-31	CERAMIC 47PF	5% 50V (A30K)
C1453	1-162-282-31	CERAMIC 100PF	10% 50V (A30K)
C1454	1-124-463-00	ELECT 0.1uF	20% 50V (A30K)
		< IC >	

Ref. No.	Part No.	Description	Remarks
IC1405	8-759-634-51	IC M5218AP (A30K)	
		< JACK >	
* J1401	1-591-002-21	JACK, LARGE TYPE (A30K)	
* J1402	1-591-002-21	JACK, LARGE TYPE (A30K)	
		< RESISTOR >	
R1438	1-249-429-11	CARBON 10K 5%	1/4W (A30K)
R1439	1-249-417-11	CARBON 1K 5%	1/4W (A30K)
R1440	1-249-441-11	CARBON 100K 5%	1/4W (A30K)
R1441	1-249-417-11	CARBON 1K 5%	1/4W (A30K)
R1442	1-249-433-11	CARBON 22K 5%	1/4W (A30K)
R1446	1-249-417-11	CARBON 1K 5%	1/4W (A30K)
R1450	1-249-429-11	CARBON 10K 5%	1/4W (A30K)
R1451	1-249-417-11	CARBON 1K 5%	1/4W (A30K)
R1452	1-249-441-11	CARBON 100K 5%	1/4W (A30K)
R1453	1-249-417-11	CARBON 1K 5%	1/4W (A30K)
R1454	1-249-433-11	CARBON 22K 5%	1/4W (A30K)

		MISCELLANEOUS	

4	1-533-217-31	HOLDER, FUSE	
* 10	1-590-948-11	WIRE (FLAT TYPE) (19 CORE)	
11	1-590-577-11	WIRE, FLAT TYPE (17 CORE)	
12	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
△17	1-559-007-11	ADAPTER, CONVERSION 2P	(A30:E3/A30K:E, Malaysia)
△17	1-559-008-11	ADAPTER, CONVERSION 2P (A30K: Saudi Arabia)	
61	1-590-575-11	WIRE, FLAT TYPE (11 CORE) (A30K)	
115	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
116	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
172	1-558-983-11	PC BOARD, MOTOR FLEXIBLE	
△CN1301	1-575-651-11	CORD, POWER (A30K: Saudi Arabia)	
△CN1301	1-575-653-11	CORD, POWER (A30:E2, E3/A30K:E, Malaysia)	
△CN1301	1-590-608-11	CORD, POWER (WITH CONNECTOR) (A30:AUS)	
△CN1302	1-526-794-11	OUTLET, AC (A30K: Saudi Arabia)	
△CN1302	1-526-882-00	OUTLET, AC (A30:E2, E3/A30K:E, Malaysia)	
△CN1302	1-540-196-11	OUTLET, AC (A30:AUS)	
HP901	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRP901	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
M901A	Y-3359-417-1	MOTOR ASSY, CAPSTAN (DECK A)	
M901B	Y-3359-417-1	MOTOR ASSY, CAPSTAN (DECK B)	
M902A	Y-3363-501-1	MOTOR ASSY, REEL (DECK A)	
M902B	Y-3363-501-1	MOTOR ASSY, REEL (DECK B)	
△T1301	1-450-484-11	TRANSFORMER, POWER	
△T1302	1-450-483-11	TRANSFORMER, POWER	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remarks
----------	----------	-------------	---------

ACCESSORIES & PACKING MATERIALS

	1-465-697-11	REMOTE COMMANDER (RM-S305)	
*	3-703-713-41	STICKER, SONY SYMBOL (10)	
	3-707-584-01	COVER, BATTERY (RM-S305)	
	4-921-934-01	SHEET, PROTECTION	
*	4-949-865-01	CUSHION (A30:E2, Australian)	

HARDWARE LIST

#1	7-685-646-79	SCREW +BVTP	3X8 TYPE2 N-S
#2	7-682-547-04	SCREW +BVTT	3X6 (S)
#3	7-682-548-04	SCREW +BVTT	3X8 (S)
#4	7-685-650-79	SCREW +BVTP	3X16 TYPE2 IT-3
#5	7-627-556-08	SCREW +P	2. 6X2. 8
#6	7-621-775-00	SCREW +B	2. 6X3
#7	7-621-849-00	SCREW,	TAPPING

PS-LX49/LX49P

SERVICE MANUAL



Photo : PS-LX49

AEP Model
E Model
PX Model
Tourist Model
PS-LX49
Australian Model
PS-LX49P

SPECIFICATIONS

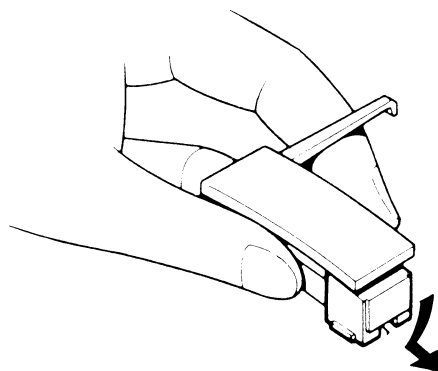
Turntable	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.2% (WRMS)
Signal-to-noise ratio	60 dB (DIN-B)
Automatic system	Return, reject
Tonearm	
Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 1/4 in.)
Cartridge	
Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	CN-234
General	
Dimensions	355 × 94 × 345 mm(w/h/d) (14 × 3 3/4 × 13 3/4 inches)
Weight	Approx. 2.5 kg (5 lb 8 oz)
Power requirement	AEP, Italian, Germany model: 220-230 V AC, 50/60 Hz PX, Tourist, E, Saudi Arabia model: 110-120 V/220-240V AC, Adjustable with the voltage selector, 50/60 Hz Australia model 12V DC
Power consumption	2 W
Accessory supplied	45-rpm adaptor (1)
Optional accessories	Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer.

Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

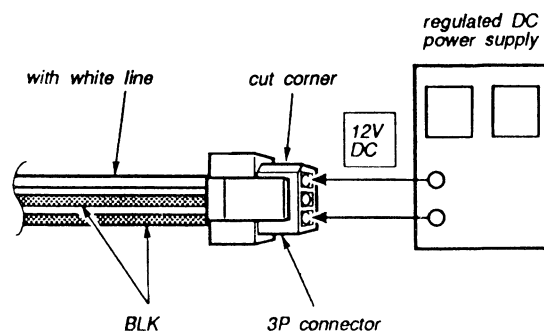
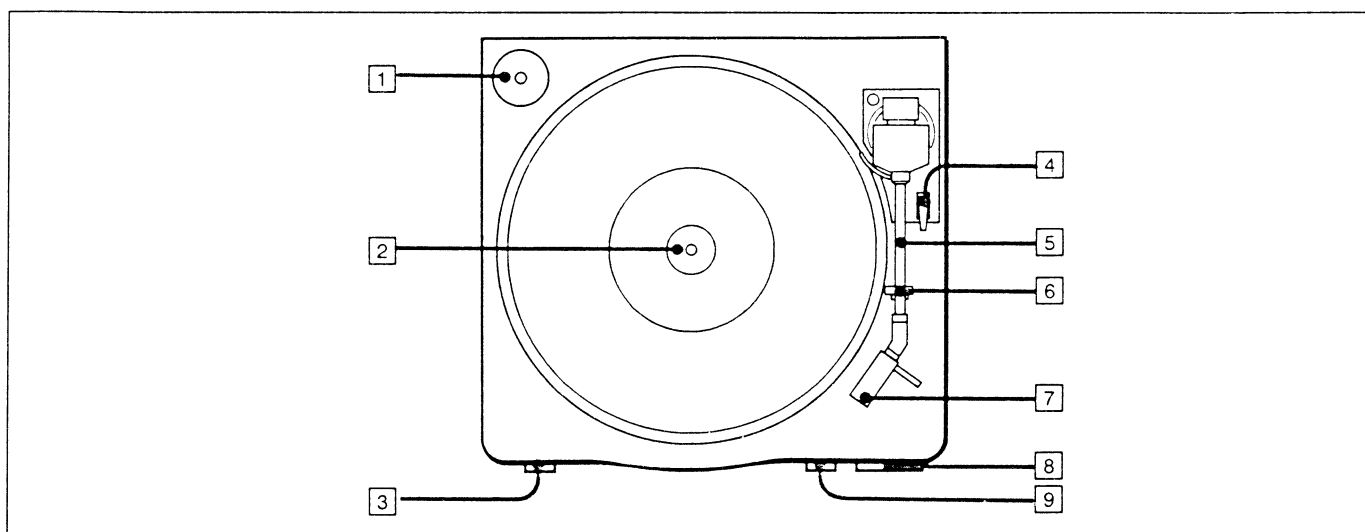
STEREO TURNTABLE SYSTEM
SONY®



MC-Service

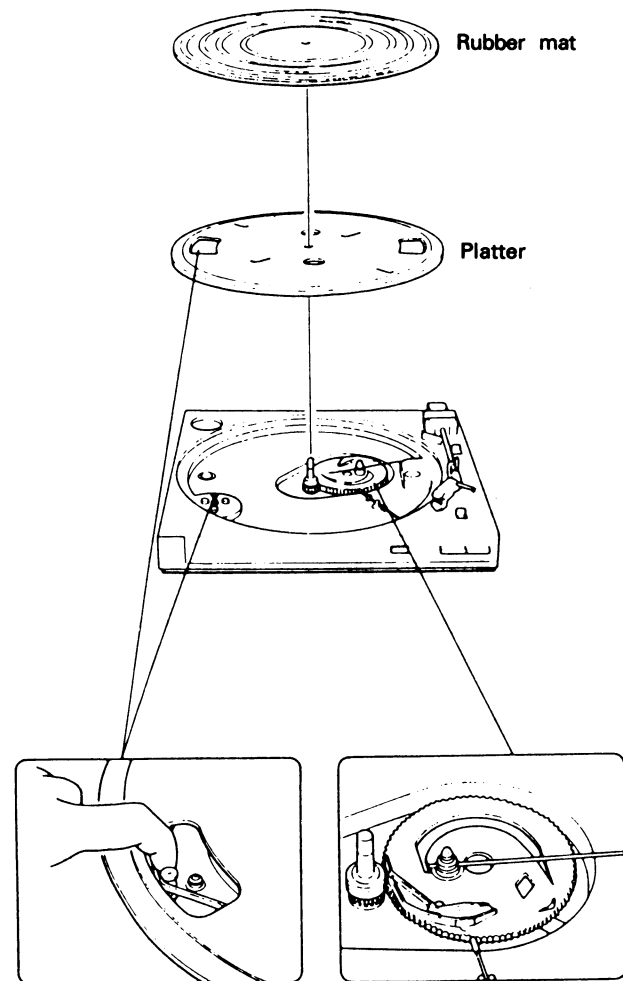
REPAIRING PRECAUTION (PS-LX49P only)**[To supply B+ voltage]**

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

**LOCATION OF CONTROLS**

- 1** 45-rpm adaptor
- 2** Center spindle
- 3** POWER switch (PS-LX49 only)
- 4** Cueing lever
- 5** Tonearm
- 6** Arm rest
- 7** Cartridge
- 8** REJECT button
- 9** Speed selector

TURNTABLE ASSEMBLY

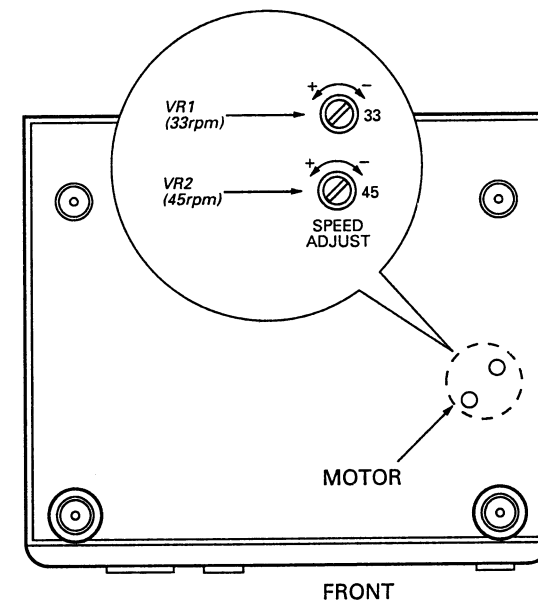


Hook the belt on the motor pulley.
If the belt is removed from the platter, replace it with the glossy side outward.

Speed Adjustment

Note: Be sure to perform 45rpm adjustment before 33rpm.

1. Place a stroboscope board on the turntable sheet.
Press the START button.
Adjust VR2 so that the striped pattern of stroboscope board is stationary.
2. Set the SPEED switch to 45.
Adjust VR1 in the same way.

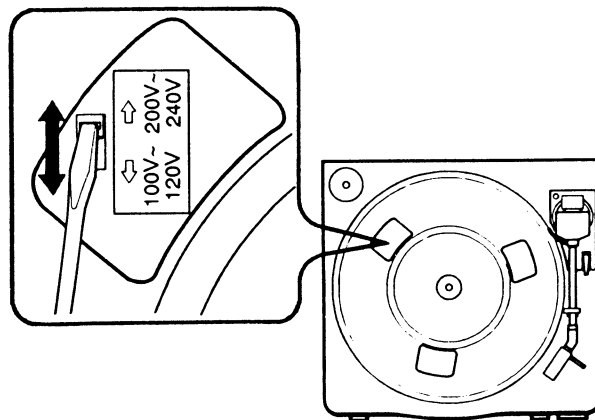


Setting the Voltage Selector

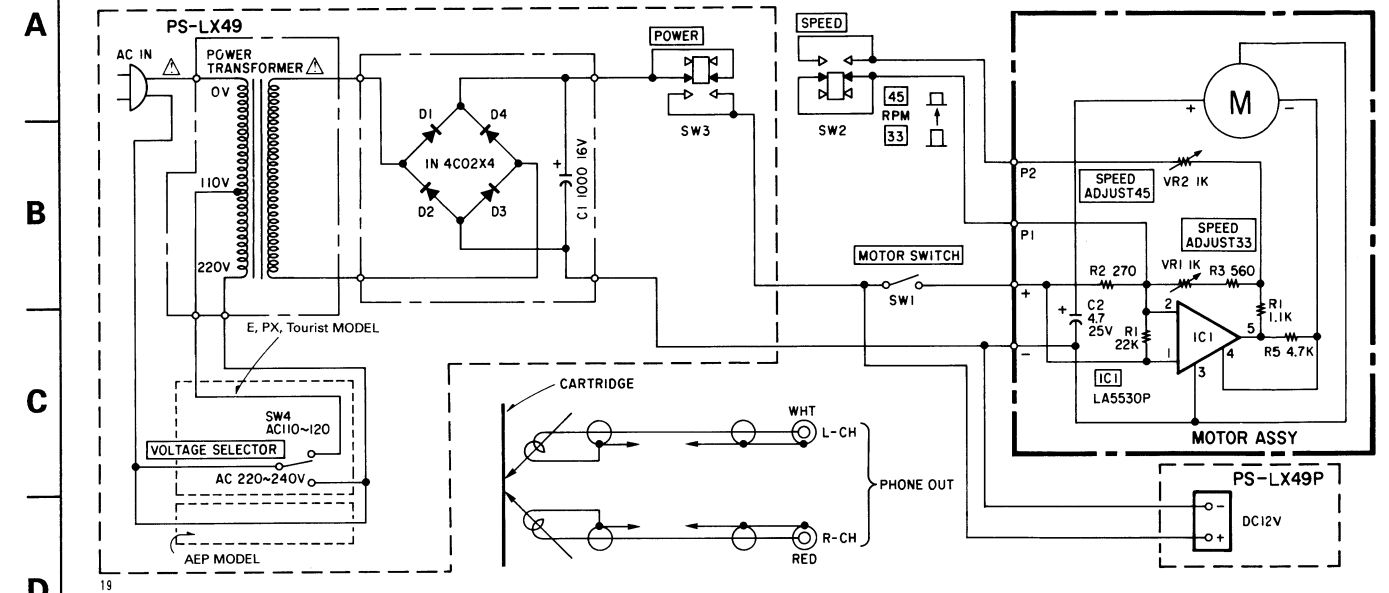
PS-LX49 (E, Saudi Arabia, PX, Tourist model)

For customers of the model equipped with the voltage selector

Check to confirm that the voltage selector is set to the local power line voltage. If not, set the voltage selector to the correct position before connecting the AC power cord to a wall outlet.



SCHEMATIC DIAGRAM



NOTE:

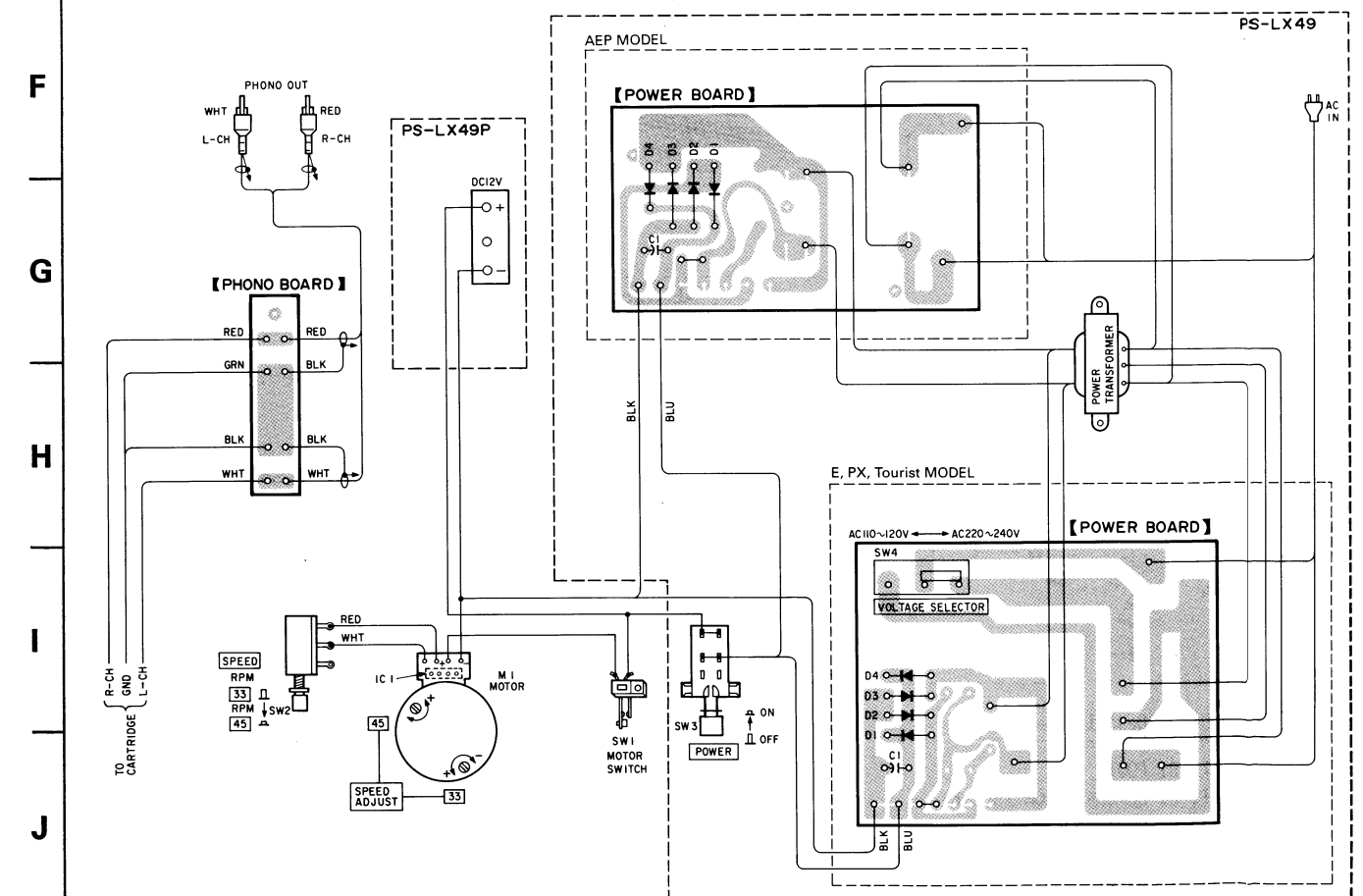
- All capacitors are in μF unless otherwise noted. pF : μF 50VWV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.

Switches:

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

WIRING DIAGRAM



EXPLODED VIEW

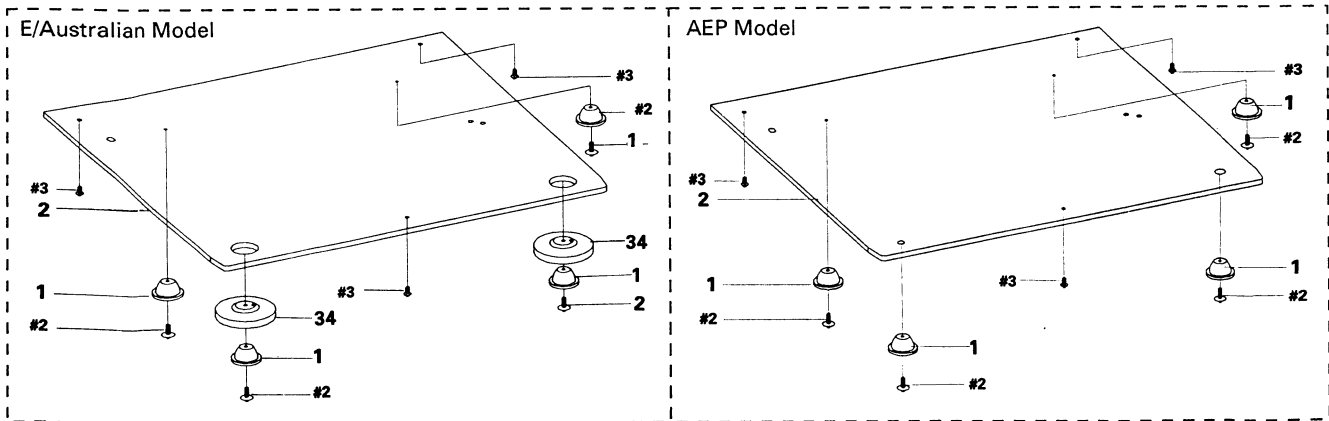
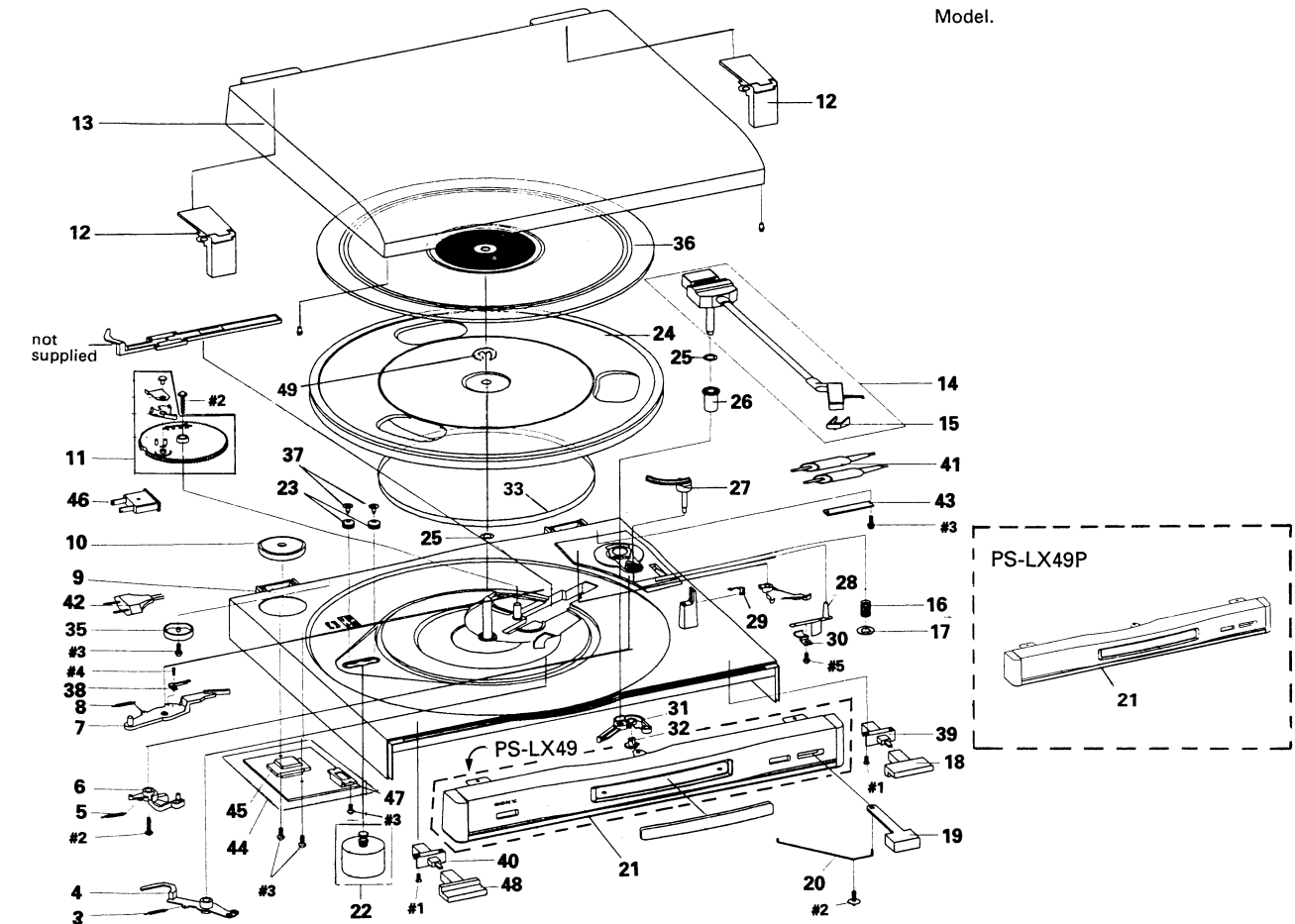
NOTE:

- XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Screw(# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

- PX and Tourist Models are identical to E Model.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-472-01	FOOT		5	4-950-455-01	SPRING-ELEVATOR	
* 2	4-950-471-01	COVER-BOTTOM (AUS, E)		6	4-950-454-01	ELEVATOR	
* 2	4-953-061-01	COVER-BOTTOM (AEP)		7	4-950-463-01	ARM-CONTROL	
3	4-950-453-01	SPRING-REJECT		8	4-950-464-01	SPRING-CONTROL ARM	
4	4-950-452-01	LEVER-REJECT		* 9	4-950-431-01	CABINET-UPPER	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
10	4-950-467-01	ADAPTOR-45RPM		30	4-950-441-01	BRACKET-CUEING	
11	A-4660-140-A	GEAR ASSY, RING		31	4-950-450-01	ARM-FEED	
12	4-950-432-01	HINGE		32	4-950-451-01	CAM-ADJUST	
13	A-4660-138-A	COVER ASSY, DUST		33	4-950-434-01	BELT	
14	A-4660-139-A	ARM ASSY, TONE		34	4-950-474-01	COVER-FOOT (AUS, E)	
15	4-951-290-01	STYLUS (CN-234)		* 35	4-950-514-01	WASHER CODE (AEP, E)	
16	4-950-442-01	SPRING-ELEVATION		36	A-4660-142-A	RUBBER ASSY, SHEET	
17	4-950-444-01	WASHER-C/S		37	4-950-469-01	SCREW-SETTING MOTOR	
18	4-950-445-01	BUTTON-SPEED		38	1-572-746-11	SWITCH, LEAF	
19	4-950-447-01	BUTTON-REJECT		39	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)	
20	4-950-448-01	LINK-REJECT		Δ 40	1-572-744-11	SWITCH, PUSH (POWER) (LX49)	
21	A-4660-137-A	PANEL (G) ASSY, FRONT (LX49P) (AUS)		41	1-590-871-11	CORD, CONNECTION (3 CORE)	
21	A-4660-143-A	PANEL (G) ASSY, FRONT (LX49) (AEP, E)		42	1-558-943-11	CORD, POWER (LX49) (E)	
22	A-4660-141-A	MOTOR ASSY		42	1-558-944-11	CORD, POWER (LX49) (AEP)	
23	4-950-470-01	CUSHION-MOTOR		43	1-639-237-11	PHONE BOARD	
24	4-950-433-01	PLATTER		Δ 44	1-639-239-11	POWER BOARD (LX49) (E)	
25	4-950-435-01	SPACER		Δ 44	1-639-236-11	POWER BOARD (LX49) (AEP)	
26	4-950-436-01	BUSHING-TONE ARM		Δ 45	1-450-508-11	TRANSFORMER, POWER (LX49)	
27	4-950-437-01	ARM-ELEVATION		Δ 46	1-693-159-11	ADAPTER, AC (LX49) (E)	
28	4-950-440-01	LEVER-CUEING		Δ 47	1-572-745-11	VOLTAGE SELECTOR (LX49) (E)	
29	4-950-439-01	LOCKER-ARM		48	4-950-513-01	BUTTON POWER (AEP, E)	
				49	4-953-059-01	E RING	

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

- XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC...,
uPD... : μ PD...
- CAPACITORS
MF : μ F, PF : μ F
- COILS
MMH : mH, uH : μ H
- PX and Tourist Models are identical to E Model.

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
MISCELLANEOUS *****				ACCESSORIES & PACKING MATERIALS *****			
38	1-572-746-11	SWITCH, LEAF		* 4-950-496-01	SNOW BOX (L)		
39	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)		* 4-950-503-01	SNOW BOX (R)		
Δ 40	1-572-744-11	SWITCH, PUSH (POWER) (LX49)		* 4-950-504-01	CARTON (AUS)		
41	1-590-871-11	CORD, CONNECTION (3 CORE)		* 4-950-515-01	CARTON (E)		
Δ 42	1-558-943-11	CORD, POWER (LX49) (E)		3-754-841-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP, E)		
Δ 42	1-558-944-11	CORD, POWER (LX49) (AEP)		3-754-841-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (AEP)		
Δ 44	1-639-236-11	POWER BOARD (LX49) (AEP)		*****			
Δ 44	1-639-239-11	POWER BOARD (LX49) (E)		HARDWARE LIST			
Δ 45	1-450-508-11	TRANSFORMER, POWER (LX49)		#1	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	
Δ 47	1-572-745-11	VOLTAGE SELECTOR (LX49) (E)		#2	7-685-903-21	SCREW +PTPH 3X8 TYPE2	
*****				#3	7-685-546-19	SCREW	
				#4	7-685-104-11	SCREW +P 2X6 TYPE2 NON-SLIT	

MC-Service

9-956-955-31

Sony Corporation
Audio Group

- 6 -

Published by Customer Relations and Service Group

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CDP-C322M

SERVICE MANUAL

*US Model
AEP Model
UK Model
E Model
Australian Model*



Model Name Using Similar Mechanism	CDP-C325M/C422M
Optical Pick-up Block Type	BU-5BD8B

SPECIFICATIONS

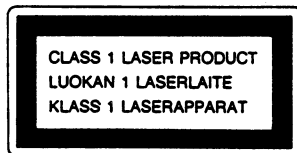
System	Compact disc digital audio system	General	
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$)	Power requirements	US model: 120V AC, 60Hz UK, Australian model: 240V AC, 50/60Hz AEP model: 220—230V AC, 50/60Hz E model: 110—120 or 220—240V AC adjustable, 50/60Hz
Laser output	Emission duration: continuous Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.	Power consumption	12 W
Frequency response	2 Hz — 20 kHz ($\pm 0.5 \text{ dB}$)	Dimensions	Approx. $355 \times 120 \times 385 \text{ mm}$ (w/h/d) ($14 \times 4\frac{3}{4} \times 15\frac{1}{4}$ inches) including projecting parts and controls
Signal to noise ratio	More than 100 dB	Weight	Approx. 5.0 kg (11 lbs 1 oz), net
Dynamic range	More than 98 dB	Supplied accessories	
Harmonic distortion	Less than 0.005% (1 kHz)	Audio signal connecting cord	(phono plug \times 2 \leftrightarrow phono plug \times 2) (1)
Channel separation	More than 100 dB (1 kHz)	Operating Manual	(1)
Wow and flutter	Below measurable limit		
Outputs	LINE OUT (phono jacks) Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms		

Design and specifications are subject to change without notice.



COMPACT DISC PLAYER
SONY®

For the United Kingdom and European Countries.



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

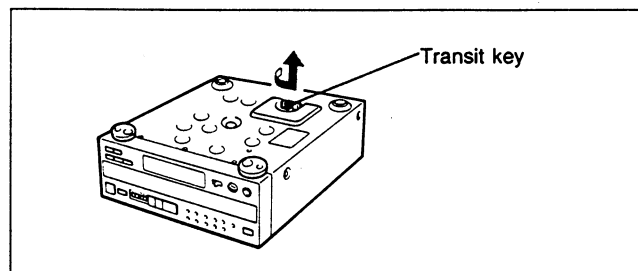
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Note on the Transit Key

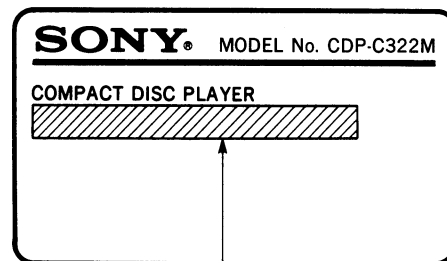


The transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.

MODEL IDENTIFICATION

— Specification Label —



US model: AC: 120V 60Hz 12W
AEP model: AC: 220-230V~50/60Hz
UK, AUS model: AC: 240V~50/60Hz
E model: AC: 110-120, 220-240V~50/60Hz 12W

•AUS: Australian model

For the United Kingdom and European Countries:



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

NOTES ON HANDLING THE OPTICAL PICKUP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, not discharging and the broken body.

During repair, pay attention to electrostatic breakdown and also use the procedures in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER-BEAM EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from some distance away from the objective lens.

SAFETY-RELATED COMPONENT WARNING:

COMPONENTS IDENTIFIED BY NAME & OR PARTING LINE WITH NAME & OR THE SUPPLEMENTAL WARNING AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH BONY PARTS. THESE PARTS WARNING APPEAR AS NOTES IN THIS MANUAL, OR IN SUPPLEMENTAL PUBLISHED BY BONY.

Note on the Transit Key



The transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.

MODEL IDENTIFICATION

— Specification Label —



CD model: AC: 1394-1394-1394
 ACP model: AC: 1394-1394-1394
 AM, full model: AC: 1394-1394-1394
 F model: AC: 1394-1394-1394-1394-1394-1394

* BONY: Australian model

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

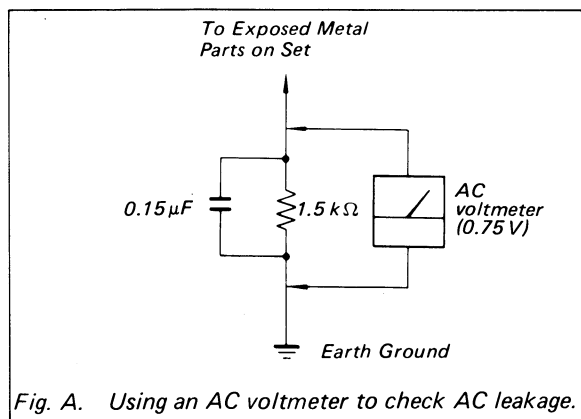


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the unit to the customer:

Check the various terminals, metal ribs, "unshielded" leads, wires, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part in both ground and from all exposed metal parts in any exposed metal part during a series of checks, must not exceed 0.5 mA (500 microamperes). Leakage current can be detected by any one of three methods.

1. A commercial leakage tester, such as the Simpson 228 or RCA WT-645A. Follow the manufacturers' instructions in use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 144 digital milliammeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC millivolt. The "hook" indication is 0.115V, indicating current must flow on accurate non-voltage scale. The Simpson 120 and Sears 924-0101 are examples of a positive VOM that is suitable. Study all battery-operated digital multimeters that have a [V~] AC range as suitable. (See Fig. 4.)



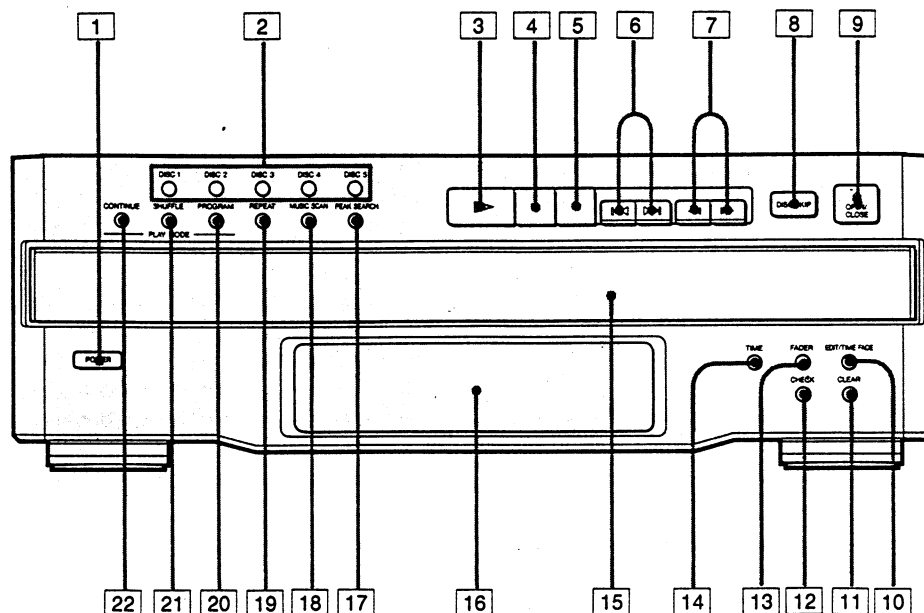
Fig. 4. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1. LOCATION AND CONTROLS

Front Panel



Refer to the pages indicated in () for details.

- | | |
|---|---|
| 1 POWER switch (page 8) | 12 CHECK (program check) button (page 13) |
| 2 DISC 1-5 buttons (page 8) | 13 FADER button (page 17) |
| 3 ► (play) button (page 8) | 14 TIME button (page 9) |
| 4 (pause) button (page 8) | 15 Disc tray (page 8) |
| 5 ■ (stop) button (page 8) | 16 Display window |
| 6 ◀◀/▶▶ (AMS*) buttons (page 10) | 17 PEAK SEARCH button (page 18) |
| 7 ◀/▶ (manual search) buttons (page 10) | 18 MUSIC SCAN button (page 16) |
| 8 DISC SKIP button (page 8) | 19 REPEAT button (page 16) |
| 9 ▲ OPEN/CLOSE button (page 8) | 20 PROGRAM button (page 12) |
| 10 EDIT/TIME FADE button (page 14) | 21 SHUFFLE button (page 11) |
| 11 CLEAR (program clear) button (page 13) | 22 CONTINUE button (page 8) |

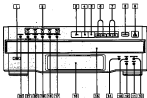
* AMS is the abbreviation of Automatic Music Sensor.

SECTION 1 GENERAL

This section is extracted from
Instruction manual.

1.1. LOCATION AND CONTROLS

Front Panel



Refer to the pages indicated in () for details.

- | | |
|---|---|
| 1 POWER switch (page 6) | 10 CHASE (program check) button (page 10) |
| 2 SMC 1-6 buttons (page 6) | 11 FADER button (page 10) |
| 3 M- (play) button (page 6) | 12 TIME button (page 6) |
| 4 R (rewind) button (page 6) | 13 Stop key (page 6) |
| 5 E (stop) button (page 6) | 14 Display window |
| 6 S- (stop) button (page 6) | 15 FEAR, SEARCH+ button (page 10) |
| 7 S- (stop) button (page 6) | 16 MISC. SCAM button (page 10) |
| 8 S- (stop) button (page 6) | 17 REPEAT button (page 10) |
| 9 S- (stop) button (page 6) | 18 PROGRAM button (page 10) |
| 10 CHASE (program check) button (page 10) | 19 S-SUPPLY button (page 11) |
| 11 FADER button (page 10) | 20 COPY button (page 11) |
| 12 TIME button (page 6) | 21 S-SUPPLY button (page 11) |
| 13 Stop key (page 6) | 22 COPY button (page 11) |

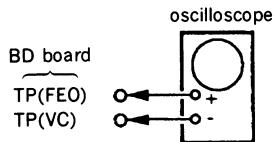
* AMR is the abbreviation of Automatic Music Search.

SECTION 2 ELECTRICAL BLOCK CHECKING

Note :

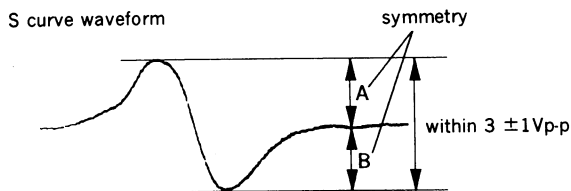
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



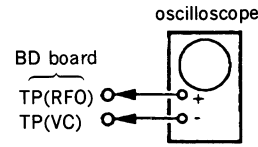
Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.



5. After check, remove the lead wire connected in step 2.
- Note :**
- Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

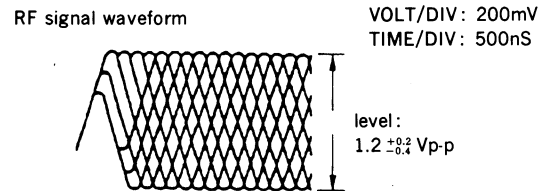


Procedure :

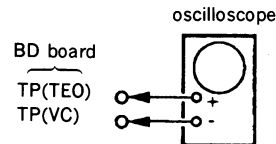
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

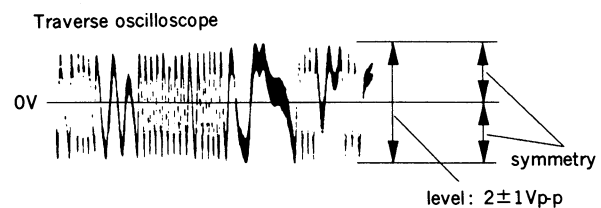


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.



6. Remove the lead wire connected in step 1.

SECTION 2 ELECTRICAL BLOCK CHECKING

Rule:

1. CD Block is totally controlled to operate without adjustment. Therefore, check each item in order given.
2. Use YIELD/RELEASE (Y/R) and (R) valves otherwise indicated.
3. Use (24) oscilloscope with more than 100MHz impedance.
4. Check an object test by an oscilloscope with second display when the signal level is over than specified value with the following checks.

8 Curve Check



Procedure:

1. Connect oscilloscope to test point TP (P20) on 8D board.
2. Connect between test point TP (P20) and TP (V2) by lead wire.
3. Turned Power switch on and activate the focus knob. Rotate the focus knob when the table is moving to and fro.
4. Check the oscilloscope waveform (3 curve) is reproduced on between A and B. And confirm peak to peak level within 10/100 p.



5. After check, remove the lead wire connected in step 2.
- Note:** • Tip to ensure correct focus to make sure that the value of A, B or C. A is more than B or C.
• Take care to change lamp or penlight and light up the brightness to obtain test waveform.

8F Level Check



Procedure:

1. Connect oscilloscope to test point TP (P20) on 8D board.
2. Turn Power switch on.
3. Put the (YIELD/RELEASE) in end playlock.
4. Confirm that oscilloscope waveform is clear and check 8F signal level is correct or not.

Note:

Clear 8F signal waveform means that the slope "Q" can be clearly distinguished at the center of the waveform.

8F signal waveform



8F Balance Check



Procedure:

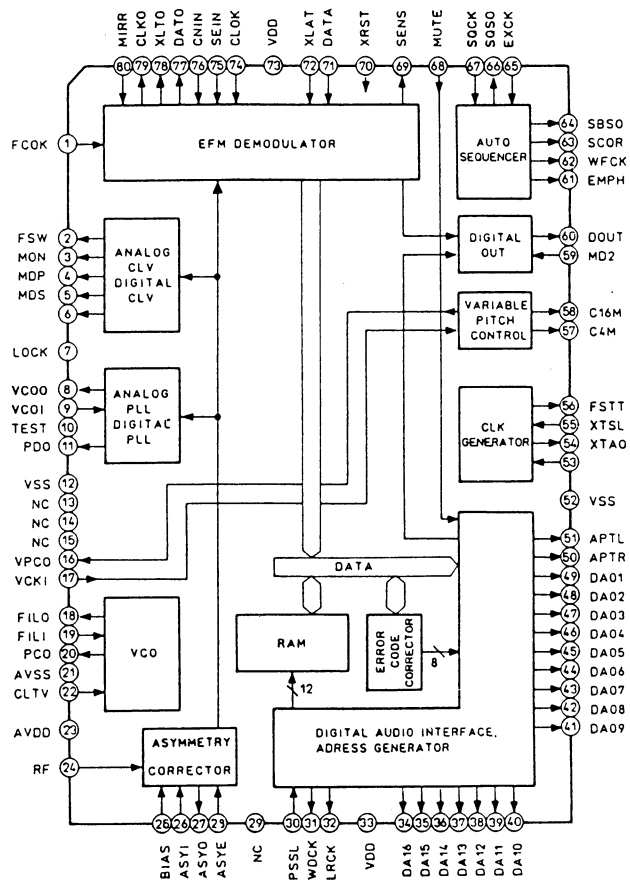
1. Connect test point TP (V2) to ground and TP (P20) to TP (V2) with lead wire.
2. Connect oscilloscope to test point TP (P20) on 8D board.
3. Turn Power switch on.
4. Put the (YIELD/RELEASE) in end playlock.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to TP, and check this level.

8F wave oscilloscope

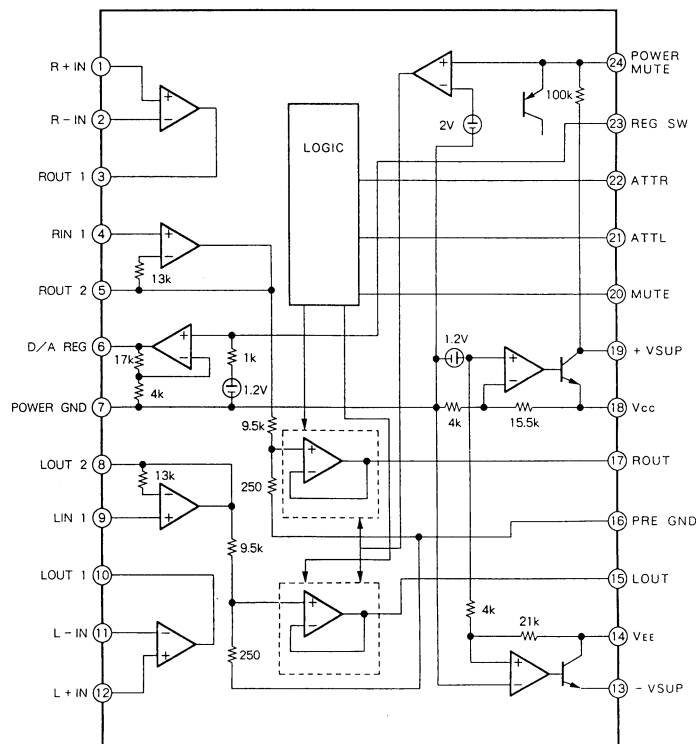


6. Remove the lead wire connected in step 1.

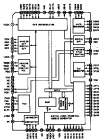
IC301 CXD2500AQ



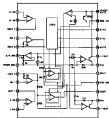
IC306 LA9215



K004: K005000A2



K004: L4001N



SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX, -X mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts
Example:

KNOB, BALANCE (WHITE)...(RED)

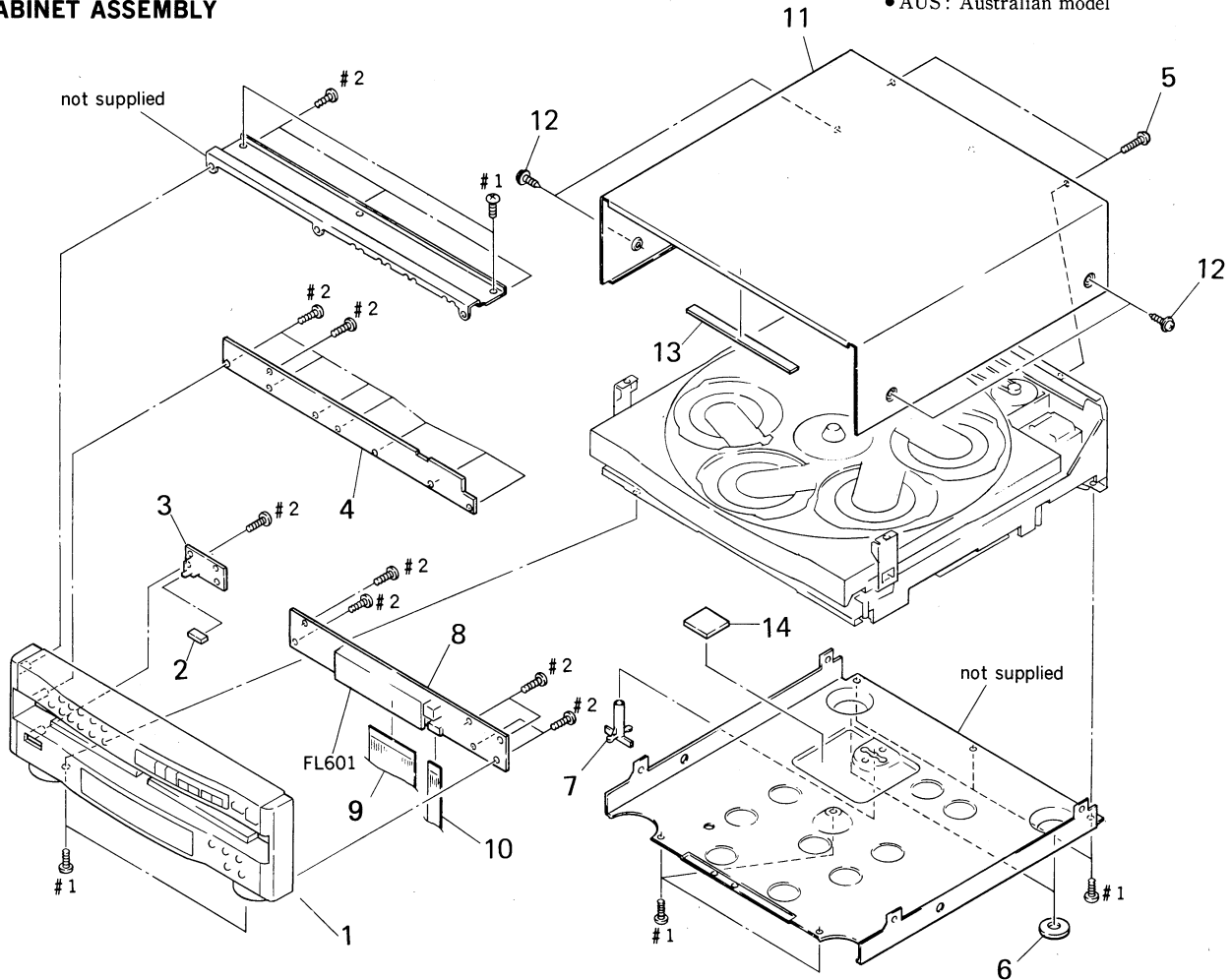
Parts Color Cabinet's Color

- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

- AUS: Australian model

4-1. CABINET ASSEMBLY



Ref. No.	Part No.	Description	Remark
1	X-4942-544-1	PANEL ASSY, FRONT (AEP:BLACK)	
1	X-4942-545-1	PANEL ASSY, FRONT (UK, AEP:GRAY)	
1	X-4942-546-1	PANEL ASSY, FRONT (US)	
1	X-4942-547-1	PANEL ASSY, FRONT (E, AUS)	
2	4-927-341-01	BUTTON (POWER)	
* 3	1-643-531-11	PUSH SW BOARD	
* 4	1-643-529-11	SW BOARD	
5	3-703-685-21	SCREW (+BV 3X8)	
6	4-924-410-01	FELT	
7	4-937-945-01	PLATE (TRANSPORT), LOCK	

Ref. No.	Part No.	Description	Remark
* 8	1-643-530-11	DISPLAY BOARD	
9	1-690-848-21	WIRE (FLAT TYPE) (33 CORE)	
10	1-690-849-21	WIRE (FLAT TYPE) (11 CORE)	
* 11	4-943-992-01	CASE (US, AEP:BLACK)	
* 11	4-943-992-11	CASE (UK, E, AUS, AEP:GRAY)	
12	3-704-366-01	SCREW (CASE) (M3X8)	
* 13	4-929-557-01	CUSHION (PANEL)	
* 14	4-951-946-01	SHEET	
FL601	1-519-721-11	INDICATOR TUBE, FLUORESCENT	

SECTION 4 EXPLODED VIEWS

NOTES:

- The mechanical parts with no reference number in the exploded view must be supplied.
- Some marked "N" are not marked when they are supplied together with other parts. These items should be indicated when ordering these items.

- All "L" non-standard parts, as they may have size difference from the original one.
- Color indication of Appearance Parts (Accessories)

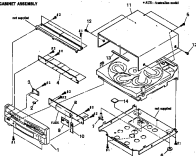
BLACK, BALLANCE WHITE, LUXE

From Color Customer's Color

- Dimensions of model kit is given in the last of this parts list.

The dimensions specified in parts list are for parts that are standard. If you are ordered for custom, dimensions may vary from part number specified.

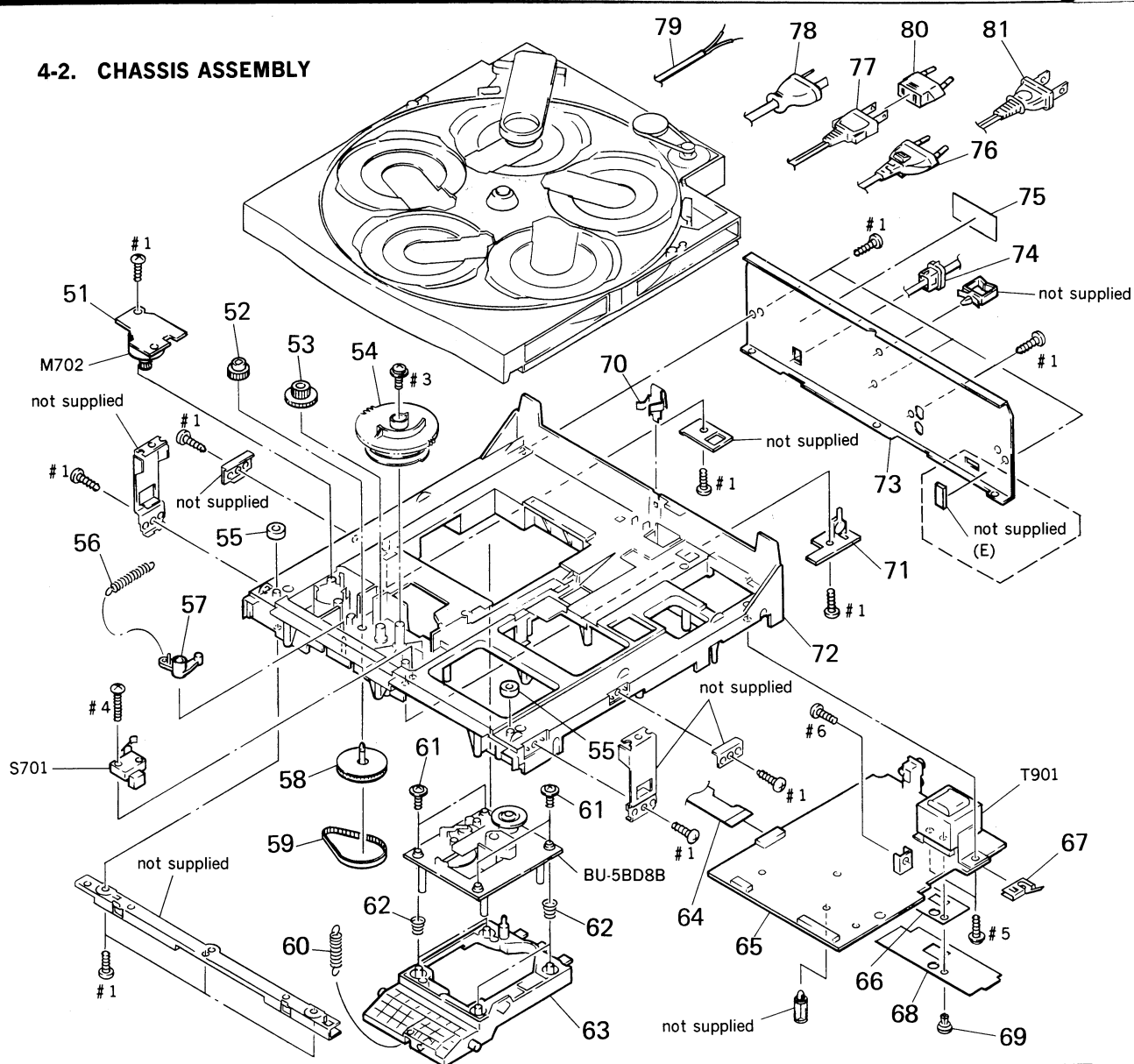
4.1. CABINET ASSEMBLY





Ref. No.	Part No.	Description	Remark
1	1-000-000-01 (N/A)	TOP	(N/A)
2	1-000-000-01 (N/A)	TOP	(N/A)
3	1-000-000-01 (N/A)	TOP	(N/A)
4	1-000-000-01 (N/A)	TOP	(N/A)
5	1-000-000-01 (N/A)	TOP	(N/A)
6	1-000-000-01 (N/A)	TOP	(N/A)
7	1-000-000-01 (N/A)	TOP	(N/A)
8	1-000-000-01 (N/A)	TOP	(N/A)
9	1-000-000-01 (N/A)	TOP	(N/A)
10	1-000-000-01 (N/A)	TOP	(N/A)
11	1-000-000-01 (N/A)	TOP	(N/A)
12	1-000-000-01 (N/A)	TOP	(N/A)
13	1-000-000-01 (N/A)	TOP	(N/A)
14	1-000-000-01 (N/A)	TOP	(N/A)
15	1-000-000-01 (N/A)	TOP	(N/A)
16	1-000-000-01 (N/A)	TOP	(N/A)
17	1-000-000-01 (N/A)	TOP	(N/A)










Ref. No.	Part No.	Description	Remark
1	1-000-000-01 (N/A)	TOP	(N/A)
2	1-000-000-01 (N/A)	TOP	(N/A)
3	1-000-000-01 (N/A)	TOP	(N/A)
4	1-000-000-01 (N/A)	TOP	(N/A)
5	1-000-000-01 (N/A)	TOP	(N/A)
6	1-000-000-01 (N/A)	TOP	(N/A)
7	1-000-000-01 (N/A)	TOP	(N/A)
8	1-000-000-01 (N/A)	TOP	(N/A)
9	1-000-000-01 (N/A)	TOP	(N/A)
10	1-000-000-01 (N/A)	TOP	(N/A)
11	1-000-000-01 (N/A)	TOP	(N/A)
12	1-000-000-01 (N/A)	TOP	(N/A)
13	1-000-000-01 (N/A)	TOP	(N/A)
14	1-000-000-01 (N/A)	TOP	(N/A)
15	1-000-000-01 (N/A)	TOP	(N/A)
16	1-000-000-01 (N/A)	TOP	(N/A)
17	1-000-000-01 (N/A)	TOP	(N/A)

4-2. CHASSIS ASSEMBLY

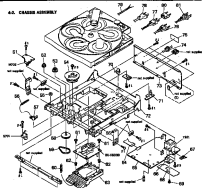


Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	1-638-730-11	LOADING MOTOR BOARD	
52	4-934-375-01	GEAR (LOADING B)	
53	4-934-381-01	GEAR (LOADING C)	
54	4-934-391-01	GEAR (LOADING A)	
* 55	4-951-619-01	CUSHION (A)	
56	4-924-412-01	SPRING (B), TENSION	
57	4-917-519-01	LEVER, SET	
58	X-4941-529-1	PULLEY ASSY	
59	4-944-490-01	BELT (TIMING)	
60	4-937-911-01	SPRING, TENSION	
61	4-933-134-01	SCREW (+PTPH M2. 6X6)	
62	4-949-385-01	SPRING (D), COIL	
* 63	4-934-373-01	BRACKET (BU)	
64	1-694-003-11	JAMPER, FILM (WITH TARMINAL)	
* 65	A-4649-204-A	MAIN BOARD, COMPLETE (AEP, UK, AUS)	
* 65	A-4649-212-A	MAIN BOARD, COMPLETE (US)	
* 65	A-4649-219-A	MAIN BOARD, COMPLETE (E)	
* 66	4-951-933-01	SHEET, INSULATING (AEP, UK, AUS)	
* 67	4-944-581-01	PLATE, GROUND	
* 68	4-944-178-01	SHEET (INSULATING)	
69	3-531-576-11	RIVET	

Ref. No.	Part No.	Description	Remark
* 70	4-943-996-01	SPRING, LEAF	
* 71	1-638-731-11	OPEN/UP SW BOARD	
* 72	4-943-997-01	CHASSIS	
* 73	4-949-861-01	PANEL, BACK (US)	
* 73	4-949-861-21	PANEL, BACK (AEP)	
* 73	4-949-861-31	PANEL, BACK (UK, AUS)	
* 73	4-949-861-41	PANEL, BACK (E)	
* 74	3-703-244-00	BUSHING (2104), CORD (EXCEPT E)	
* 74	3-703-571-11	BUSHING (S) (4516), CORD (E)	
* 75	4-941-548-01	LABEL, CLASS 1 (EXCEPT US)	
 76	1-575-651-21	CORD, POWER (AEP)	
 77	1-575-653-21	CORD, POWER (E)	
 78	1-574-358-31	CORD, POWER (WITH CONNECTOR) (AUS)	
 79	1-558-946-21	CORD, POWER (UK)	
 80	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
 81	1-590-836-11	CORD, POWER (US)	
M702	A-4604-834-A	MOTOR ASSY, LOADING	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	
 T901	1-449-955-11	TRANSFORMER, POWER (AEP, UK, AUS)	
 T901	1-449-956-11	TRANSFORMER, POWER (E)	
 T901	1-450-876-11	TRANSFORMER, POWER (US)	

Ref.
10
* 10
* 10
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* 10
* 10
10

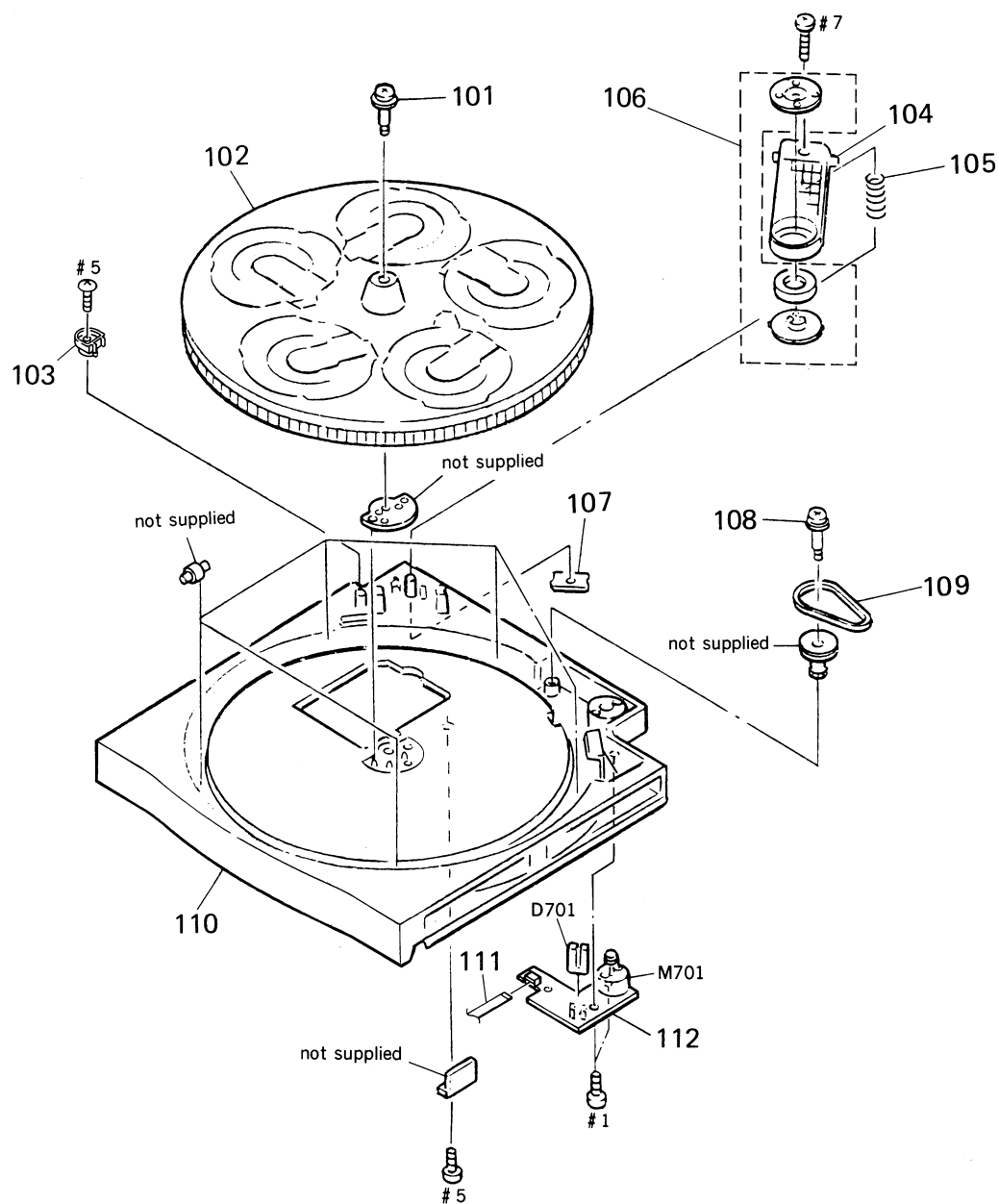
[illegible]

Notes: The corresponding description for each item is detailed below. Items marked **1** are included in the primary analysis and items marked **2** are included in the sensitivity analysis.

[illegible]

Ref. No.	Ref. No.	Description	Amount
- 10	1-100-100-10	OFFICE, L&P	
- 11	1-100-100-11	OFFICE, L&P (cont.)	
- 12	1-100-100-12	OFFICE	
- 13	1-100-100-13	PAID, NEW YORK	
- 14	1-100-100-14	PAID, NEW YORK	
- 15	1-100-100-15	PAID, NEW YORK	
- 16	1-100-100-16	PAID, NEW YORK	
- 17	1-100-100-17	PAID, NEW YORK	
- 18	1-100-100-18	PAID, NEW YORK	
- 19	1-100-100-19	PAID, NEW YORK	
- 20	1-100-100-20	PAID, NEW YORK	
- 21	1-100-100-21	PAID, NEW YORK	
- 22	1-100-100-22	PAID, NEW YORK	
- 23	1-100-100-23	PAID, NEW YORK	
- 24	1-100-100-24	PAID, NEW YORK	
- 25	1-100-100-25	PAID, NEW YORK	
- 26	1-100-100-26	PAID, NEW YORK	
- 27	1-100-100-27	PAID, NEW YORK	
- 28	1-100-100-28	PAID, NEW YORK	
- 29	1-100-100-29	PAID, NEW YORK	
- 30	1-100-100-30	PAID, NEW YORK	
- 31	1-100-100-31	PAID, NEW YORK	
- 32	1-100-100-32	PAID, NEW YORK	
- 33	1-100-100-33	PAID, NEW YORK	
- 34	1-100-100-34	PAID, NEW YORK	
- 35	1-100-100-35	PAID, NEW YORK	
- 36	1-100-100-36	PAID, NEW YORK	
- 37	1-100-100-37	PAID, NEW YORK	
- 38	1-100-100-38	PAID, NEW YORK	
- 39	1-100-100-39	PAID, NEW YORK	
- 40	1-100-100-40	PAID, NEW YORK	
- 41	1-100-100-41	PAID, NEW YORK	
- 42	1-100-100-42	PAID, NEW YORK	
- 43	1-100-100-43	PAID, NEW YORK	
- 44	1-100-100-44	PAID, NEW YORK	
- 45	1-100-100-45	PAID, NEW YORK	
- 46	1-100-100-46	PAID, NEW YORK	
- 47	1-100-100-47	PAID, NEW YORK	
- 48	1-100-100-48	PAID, NEW YORK	
- 49	1-100-100-49	PAID, NEW YORK	
- 50	1-100-100-50	PAID, NEW YORK	
- 51	1-100-100-51	PAID, NEW YORK	
- 52	1-100-100-52	PAID, NEW YORK	
- 53	1-100-100-53	PAID, NEW YORK	
- 54	1-100-100-54	PAID, NEW YORK	
- 55	1-100-100-55	PAID, NEW YORK	
- 56	1-100-100-56	PAID, NEW YORK	
- 57	1-100-100-57	PAID, NEW YORK	
- 58	1-100-100-58	PAID, NEW YORK	
- 59	1-100-100-59	PAID, NEW YORK	
- 60	1-100-100-60	PAID, NEW YORK	
- 61	1-100-100-61	PAID, NEW YORK	
- 62	1-100-100-62	PAID, NEW YORK	
- 63	1-100-100-63	PAID, NEW YORK	
- 64	1-100-100-64	PAID, NEW YORK	
- 65	1-100-100-65	PAID, NEW YORK	
- 66	1-100-100-66	PAID, NEW YORK	
- 67	1-100-100-67	PAID, NEW YORK	
- 68	1-100-100-68	PAID, NEW YORK	
- 69	1-100-100-69	PAID, NEW YORK	
- 70	1-100-100-70	PAID, NEW YORK	
- 71	1-100-100-71	PAID, NEW YORK	
- 72	1-100-100-72	PAID, NEW YORK	
- 73	1-100-100-73	PAID, NEW YORK	
- 74	1-100-100-74	PAID, NEW YORK	
- 75	1-100-100-75	PAID, NEW YORK	
- 76	1-100-100-76	PAID, NEW YORK	
- 77	1-100-100-77	PAID, NEW YORK	
- 78	1-100-100-78	PAID, NEW YORK	
- 79	1-100-100-79	PAID, NEW YORK	
- 80	1-100-100-80	PAID, NEW YORK	
- 81	1-100-100-81	PAID, NEW YORK	
- 82	1-100-100-82	PAID, NEW YORK	
- 83	1-100-100-83	PAID, NEW YORK	
- 84	1-100-100-84	PAID, NEW YORK	
- 85	1-100-100-85	PAID, NEW YORK	
- 86	1-100-100-86	PAID, NEW YORK	
- 87	1-100-100-87	PAID, NEW YORK	
- 88	1-100-100-88	PAID, NEW YORK	
- 89	1-100-100-89	PAID, NEW YORK	
- 90	1-100-100-90	PAID, NEW YORK	

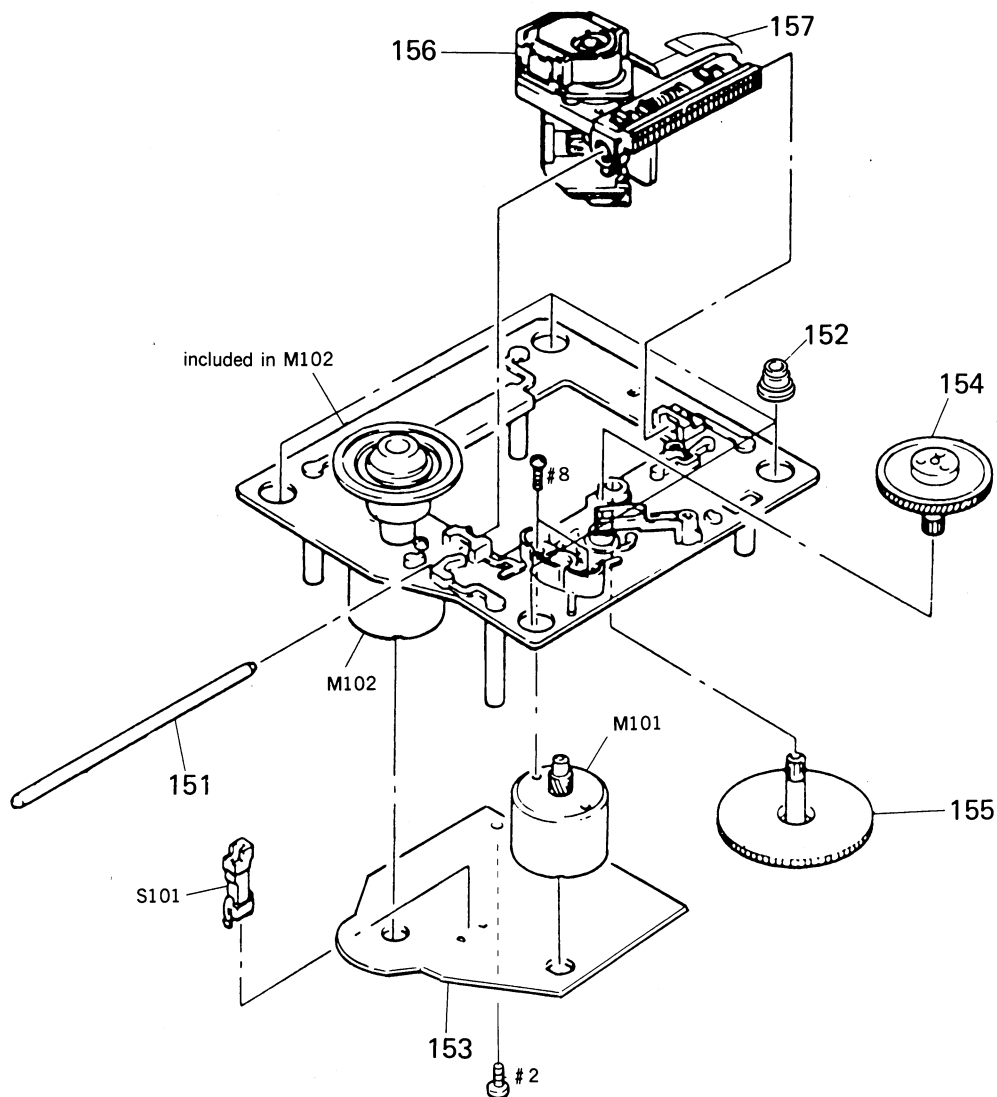
4-3. TRAY ASSEMBLY





Ref. No.	Part No.	Description	Remark
101	4-926-384-01	SCREW, STEP	
* 102	4-926-383-01	TABLE (B), DISK	
* 103	4-949-226-01	PLATE, LOCK	
* 104	4-930-506-02	BRACKET (PRESS PULLEY)	
105	4-926-395-01	SPRING, COMPRESSION	
* 106	1-452-538-11	MAGNET	
* 107	4-926-388-01	BRACKET (ADJUSTMENT)	
108	4-923-597-01	SCREW, STEP	


Ref. No.	Part No.	Description	Remark
109	4-926-399-01	BELT	
110	4-951-106-01	TABLE (A), DISK (UK, E, AEP:GRAY)	
110	4-951-106-11	TABLE (A), DISK (US, AEP:BLACK)	
111	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
* 112	1-638-729-11	TABLE MOTOR BOARD	
D701	8-719-970-19	DIODE GP1A521	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	

4-4. OPTICAL PICK-UP BLOCK (BU-5BD8B)



Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	4-917-565-01	SHAFT, SLED	
* 152	4-951-940-01	INSULATOR (BU)	
* 153	A-4649-199-A	BD BOARD, COMPLETE	
154	4-917-567-01	GEAR (M)	
155	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
 156	8-848-144-11	DEVICE, OPTICAL KSS-240A	
157	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-504-1	MOTOR ASSY, SLED	
M102	X-4917-523-3	MOTOR ASSY, SPINDLE	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 5 ELECTRICAL PARTS LIST

BD DISPLAY

PUSH SW SW

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA ... μ A. uPA ... μ PA.
uPB ... μ PB. uPC ... μ PC. uPD ... μ PD.
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

● AUS: Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4649-199-A	BD BOARD, COMPLETE *****		R112	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< CAPACITOR >		R113	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C101	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R114	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C102	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R117	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C103	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	R118	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C104	1-164-505-11	CERAMIC CHIP 2.2uF	16V	R121	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C105	1-135-155-21	TANTALUM CHIP 4.7uF	10% 16V	R122	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C106	1-164-346-11	CERAMIC CHIP 1uF	16V	R151	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C107	1-164-505-11	CERAMIC CHIP 2.2uF	16V	R152	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C108	1-164-346-11	CERAMIC CHIP 1uF	16V	R153	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C112	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R154	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C151	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R155	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C152	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R156	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
C153	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R157	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C154	1-164-336-11	CERAMIC CHIP 0.33uF	25V	R158	1-216-076-00	METAL CHIP 13K 5% 1/10W	
C155	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R159	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C156	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	R160	1-216-081-00	METAL CHIP 22K 5% 1/10W	
C157	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	R161	1-216-093-00	METAL CHIP 68K 5% 1/10W	
C158	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	R162	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C159	1-163-023-00	CERAMIC CHIP 0.015uF	5% 50V	R163	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
C160	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V			< SWITCH >	
C181	1-163-038-00	CERAMIC CHIP 0.1uF	25V	S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
		< CONNECTOR >		*****			
CN101	1-568-861-11	SOCKET, CONNECTOR 18P		*	1-643-530-11	DISPLAY BOARD	
CN102	1-568-795-11	SOCKET, CONNECTOR 12P				*****	
		< IC >		*	1-643-531-11	PUSH SW BOARD	
IC101	8-752-344-48	IC CXD2501Q				*****	
IC102	8-759-071-79	IC BA6297AFP		*	1-643-529-11	SW BOARD	
		< RESISTOR >				*****	
R101	1-216-077-00	METAL CHIP 15K 5% 1/10W				< CONNECTOR >	
R102	1-216-097-00	METAL CHIP 100K 5% 1/10W		* CN601	1-691-901-11	SOCKET, CONNECTOR (L TYPE) 33P	
R103	1-216-077-00	METAL CHIP 15K 5% 1/10W		* CN602	1-691-889-11	SOCKET, CONNECTOR (L TYPE) 11P	
R104	1-216-085-00	METAL CHIP 33K 5% 1/10W		* CN703	1-568-944-11	PIN, CONNECTOR 6P	
R105	1-216-097-00	METAL CHIP 100K 5% 1/10W				< FLUORESCENT INDICATOR >	
				FL601	1-519-721-11	INDICATOR TUBE, FLUORESCENT	

DISPLAY

PUSH SW

SW

LOADING MOTOR

OPEN/UP SW

TABLE MOTOR

MAIN

Ref. No.	Part No.	Description	Remark
< IC >			
IC601	8-741-100-48	IC SBX1610-59	
< RESISTOR >			
R601	1-249-427-11	CARBON 6.8K 5% 1/4W	
R602	1-249-422-11	CARBON 2.7K 5% 1/4W	
R603	1-249-424-11	CARBON 3.9K 5% 1/4W	
R701	1-249-427-11	CARBON 6.8K 5% 1/4W	
R702	1-249-432-11	CARBON 18K 5% 1/4W	
R703	1-249-424-11	CARBON 3.9K 5% 1/4W	
R704	1-249-422-11	CARBON 2.7K 5% 1/4W	
R705	1-249-427-11	CARBON 6.8K 5% 1/4W	
R706	1-249-424-11	CARBON 3.9K 5% 1/4W	
R707	1-249-422-11	CARBON 2.7K 5% 1/4W	
R708	1-249-422-11	CARBON 2.7K 5% 1/4W	
R709	1-249-422-11	CARBON 2.7K 5% 1/4W	
R710	1-249-424-11	CARBON 3.9K 5% 1/4W	
R711	1-249-427-11	CARBON 6.8K 5% 1/4W	
R712	1-249-422-11	CARBON 2.7K 5% 1/4W	
R713	1-249-424-11	CARBON 3.9K 5% 1/4W	
R714	1-249-427-11	CARBON 6.8K 5% 1/4W	
R715	1-249-432-11	CARBON 18K 5% 1/4W	
R716	1-249-432-11	CARBON 18K 5% 1/4W	
< SWITCH >			
SW601	1-572-714-11	SWITCH, PUSH (POWER)	
SW604	1-554-303-21	SWITCH, TACTILE (TIME)	
SW605	1-554-303-21	SWITCH, TACTILE (FADER)	
SW606	1-554-303-21	SWITCH, TACTILE (EDIT/TIME)	
SW607	1-554-303-21	SWITCH, TACTILE (CHECK)	
SW608	1-554-303-21	SWITCH, TACTILE (CLEAR)	
SW702	1-554-303-21	SWITCH, TACTILE (DISC 1)	
SW703	1-554-303-21	SWITCH, TACTILE (DISC 2)	
SW704	1-554-303-21	SWITCH, TACTILE (DISC 3)	
SW705	1-554-303-21	SWITCH, TACTILE (DISC 4)	
SW706	1-554-303-21	SWITCH, TACTILE (DISC 5)	
SW707	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
SW708	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
SW709	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
SW710	1-554-303-21	SWITCH, TACTILE (REPEAT)	
SW711	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
SW712	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)	
SW713	1-554-303-21	SWITCH, TACTILE (▷)	
SW714	1-554-303-21	SWITCH, TACTILE (■)	
SW715	1-554-303-21	SWITCH, TACTILE (■)	
SW716	1-554-303-21	SWITCH, TACTILE (K)	
SW717	1-554-303-21	SWITCH, TACTILE (▶)	
SW718	1-554-303-21	SWITCH, TACTILE (◀)	

Ref. No.	Part No.	Description	Remark
SW719	1-554-303-21	SWITCH, TACTILE (▶▶)	
SW720	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	
SW721	1-554-303-21	SWITCH, TACTILE (△OPEN/CLOSE)	

*	1-638-730-11	LOADING MOTOR BOARD	

*	1-638-731-11	OPEN/UP SW BOARD	

*	1-638-729-11	TABLE MOTOR BOARD	

< CAPACITOR >			
C704	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C705	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
< CONNECTOR >			
* CN705	1-573-383-11	PIN, CONNECTOR (PC BOARD) 2P	
* CN707	1-573-044-11	SOCKET, CONNECTOR 5P	
< DIODE >			
D701	8-719-970-19	DIODE GP-1A521	
< RESISTOR >			
R701	1-249-416-11	CARBON 820 5% 1/4W	
< SWITCH >			
S702	1-571-300-21	SWITCH, ROTARY (OPEN/UP)	

*	A-4649-212-A	MAIN BOARD, COMPLETE (US)	
*	A-4649-204-A	MAIN BOARD, COMPLETE (AEP, UK, AUS)	
*	A-4649-219-A	MAIN BOARD, COMPLETE (E)	

7-682-548-04	SCREW +BVTT 3X8 (S)		
< CAPACITOR >			
C201	1-124-572-11	ELECT 100uF 20% 63V	
C202	1-126-059-11	ELECT 10uF 20% 50V	
C203	1-124-360-11	ELECT 1000uF 20% 16V	
C204	1-124-887-00	ELECT 3300uF 20% 16V	
C205	1-126-163-11	ELECT 4.7uF 20% 50V	
C206	1-126-163-11	ELECT 4.7uF 20% 50V	
C207	1-124-910-11	ELECT 47uF 20% 50V	
C209	1-124-997-11	ELECT 470uF 20% 10V	
C210	1-126-024-11	ELECT 220uF 20% 16V	
C221	1-161-494-00	CERAMIC 0.022uF 25V	
C230	1-126-049-11	ELECT 22uF 20% 25V	
C231	1-124-994-11	ELECT 100uF 20% 10V	

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C232	1-124-994-11	ELECT	100uF	20%	10V	C391	1-124-997-11	ELECT	470uF	20%	10V
C233	1-126-012-11	ELECT	470uF	20%	16V	C392	1-164-159-11	CERAMIC	0.1uF		50V
C234	1-126-012-11	ELECT	470uF	20%	16V	C393	1-164-159-11	CERAMIC	0.1uF		50V
C301	1-126-022-11	ELECT	47uF	20%	16V	C394	1-164-159-11	CERAMIC	0.1uF		50V
C302	1-161-494-00	CERAMIC	0.022uF		25V	C401	1-126-022-11	ELECT	47uF	20%	16V
C303	1-161-494-00	CERAMIC	0.022uF		25V	C402	1-161-494-00	CERAMIC	0.022uF		25V
C304	1-164-159-11	CERAMIC	0.1uF		50V	C403	1-126-023-11	ELECT	100uF	20%	16V
C311	1-136-161-00	FILM	0.047uF	5%	50V	C404	1-126-023-11	ELECT	100uF	20%	16V
C312	1-161-374-11	CERAMIC	0.0015uF	20%	50V	C408	1-164-159-11	CERAMIC	0.1uF		50V
C313	1-161-494-00	CERAMIC	0.022uF		25V	C409	1-164-159-11	CERAMIC	0.1uF		50V
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V	C414	1-161-494-00	CERAMIC	0.022uF		25V
C315	1-126-300-11	ELECT	0.47uF	20%	50V	C425	1-162-294-31	CERAMIC	0.001uF	10%	50V
C316	1-161-494-00	CERAMIC	0.022uF		25V	C426	1-162-294-31	CERAMIC	0.001uF	10%	50V
C319	1-162-282-31	CERAMIC	100PF	10%	50V	C429	1-162-294-31	CERAMIC	0.001uF	10%	50V
C320	1-130-483-00	MYLAR	0.01uF	5%	50V	C430	1-162-294-31	CERAMIC	0.001uF	10%	50V
C322	1-164-159-11	CERAMIC	0.1uF		50V	C431	1-162-294-31	CERAMIC	0.001uF	10%	50V
C331	1-162-208-31	CERAMIC	24PF	5%	50V	C432	1-162-294-31	CERAMIC	0.001uF	10%	50V
C336	1-126-022-11	ELECT	47uF	20%	16V	< CONNECTOR >					
C337	1-161-494-00	CERAMIC	0.022uF		25V	* CN201	1-573-047-11	PIN, CONNECTOR (PC BOARD) 2P			
C342	1-126-022-11	ELECT	47uF	20%	16V	* CN301	1-691-895-11	SOCKET, CONNECTOR (L TYPE) 18P			
C343	1-161-494-00	CERAMIC	0.022uF		25V	* CN401	1-691-901-11	SOCKET, CONNECTOR (L TYPE) 33P			
C349	1-161-494-00	CERAMIC	0.022uF		25V	CN402	1-691-889-11	SOCKET, CONNECTOR (L TYPE) 11P			
C350	1-126-022-11	ELECT	47uF	20%	16V	* CN403	1-568-824-11	SOCKET, CONNECTOR 5P			
C351	1-161-494-00	CERAMIC	0.022uF		25V	* CN404	1-568-943-11	PIN, CONNECTOR 5P			
C353	1-162-205-31	CERAMIC	18PF	5%	50V	< DIODE >					
C354	1-162-205-31	CERAMIC	18PF	5%	50V	D201	8-719-200-82	DIODE 11ES2			
C355	1-161-494-00	CERAMIC	0.022uF		25V	D202	8-719-110-08	DIODE RD8. 2ES-B2			
C356	1-126-022-11	ELECT	47uF	20%	16V	D203	8-719-200-82	DIODE 11ES2			
C357	1-124-997-11	ELECT	470uF	20%	10V	D204	8-719-200-82	DIODE 11ES2			
C358	1-161-494-00	CERAMIC	0.022uF		25V	D205	8-719-200-82	DIODE 11ES2			
C361	1-162-280-31	CERAMIC	82PF	10%	50V	D206	8-719-200-82	DIODE 11ES2			
C363	1-162-213-31	CERAMIC	39PF	5%	50V	D207	8-719-200-82	DIODE 11ES2 (EXCEPT E)			
C364	1-162-213-31	CERAMIC	39PF	5%	50V	D208	8-719-200-82	DIODE 11ES2 (EXCEPT E)			
C365	1-162-213-31	CERAMIC	39PF	5%	50V	D385	8-719-987-63	DIODE 1N4148M			
C366	1-162-213-31	CERAMIC	39PF	5%	50V	< IC >					
C367	1-162-280-31	CERAMIC	82PF	10%	50V	IC201	8-759-633-42	IC M5293L			
C371	1-130-479-00	MYLAR	0.0047uF	5%	50V	IC202	8-759-061-65	IC LA5602			
C372	1-130-479-00	MYLAR	0.0047uF	5%	50V	IC204	8-759-604-86	IC M5F7807L			
C373	1-130-472-00	MYLAR	0.0012uF	5%	50V	IC301	8-752-337-26	IC CXD2500AQ			
C374	1-130-472-00	MYLAR	0.0012uF	5%	50V	IC302	8-752-342-65	IC CXD2560M			
C375	1-124-994-11	ELECT	100uF	20%	10V	IC303	8-752-351-19	IC CXD2561BM			
C376	1-124-994-11	ELECT	100uF	20%	10V	IC306	8-759-061-66	IC LA9215			
C377	1-124-994-11	ELECT	100uF	20%	10V	IC401	8-752-837-01	IC CXP50116-287Q			
C378	1-124-994-11	ELECT	100uF	20%	10V	IC402	8-759-821-32	IC CXA1291P			
C379	1-130-473-00	MYLAR	0.0015uF	5%	50V						
C380	1-130-473-00	MYLAR	0.0015uF	5%	50V						
C384	1-126-022-11	ELECT	47uF	20%	16V						
C385	1-126-022-11	ELECT	47uF	20%	16V						
C390	1-161-494-00	CERAMIC	0.022uF		25V						

MAIN

Ref. No.	Part No.	Description	Remark
< JACK >			
J501	1-569-442-11	JACK, PIN 2P (LINE OUT)	
< COIL >			
L301	1-412-473-21	INDUCTOR 0uH	
L302	1-412-473-21	INDUCTOR 0uH	
L303	1-412-473-21	INDUCTOR 0uH	
L305	1-412-473-21	INDUCTOR 0uH	
L306	1-412-297-11	INDUCTOR 3. 3uH	
L309	1-412-473-21	INDUCTOR 0uH	
L310	1-412-473-21	INDUCTOR 0uH	
L311	1-412-473-21	INDUCTOR 0uH	
L331	1-412-297-11	INDUCTOR 3. 3uH	
< TRANSISTOR >			
Q201	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q302	8-729-900-80	TRANSISTOR DTC114ES	
Q303	8-729-900-89	TRANSISTOR DTC144ES	
Q304	8-729-900-61	TRANSISTOR DTA114ES	
Q305	8-729-900-61	TRANSISTOR DTA114ES	
Q401	8-729-900-89	TRANSISTOR DTC144ES	
< RESISTOR >			
R201	1-249-435-11	CARBON 33K 5% 1/4W	
R202	1-249-438-11	CARBON 56K 5% 1/4W	
R203	1-249-429-11	CARBON 10K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-417-11	CARBON 1K 5% 1/4W	
R303	1-249-417-11	CARBON 1K 5% 1/4W	
R304	1-249-417-11	CARBON 1K 5% 1/4W	
R306	1-249-413-11	CARBON 470 5% 1/4W	
R309	1-249-405-11	CARBON 100 5% 1/4W	
R311	1-249-423-11	CARBON 3. 3K 5% 1/4W	
R312	1-249-429-11	CARBON 10K 5% 1/4W	
R313	1-249-423-11	CARBON 3. 3K 5% 1/4W	
R314	1-249-429-11	CARBON 10K 5% 1/4W	
R315	1-249-417-11	CARBON 1K 5% 1/4W	
R316	1-249-417-11	CARBON 1K 5% 1/4W	
R317	1-249-419-11	CARBON 1. 5K 5% 1/4W	
R318	1-249-441-11	CARBON 100K 5% 1/4W	
R319	1-247-903-00	CARBON 1M 5% 1/4W	
R321	1-249-417-11	CARBON 1K 5% 1/4W	
R322	1-249-417-11	CARBON 1K 5% 1/4W	
R323	1-249-417-11	CARBON 1K 5% 1/4W	
R324	1-249-417-11	CARBON 1K 5% 1/4W	
R330	1-249-417-11	CARBON 1K 5% 1/4W	
R331	1-249-417-11	CARBON 1K 5% 1/4W	
R342	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R351	1-249-436-11	CARBON 39K 5% 1/4W	
R352	1-249-436-11	CARBON 39K 5% 1/4W	
R353	1-249-436-11	CARBON 39K 5% 1/4W	
R354	1-249-436-11	CARBON 39K 5% 1/4W	
R355	1-249-436-11	CARBON 39K 5% 1/4W	
R356	1-249-436-11	CARBON 39K 5% 1/4W	
R357	1-249-436-11	CARBON 39K 5% 1/4W	
R358	1-249-436-11	CARBON 39K 5% 1/4W	
R359	1-247-903-00	CARBON 1M 5% 1/4W	
R361	1-249-431-11	CARBON 15K 5% 1/4W	
R362	1-249-431-11	CARBON 15K 5% 1/4W	
R363	1-249-431-11	CARBON 15K 5% 1/4W	
R364	1-249-431-11	CARBON 15K 5% 1/4W	
R365	1-249-438-11	CARBON 56K 5% 1/4W	
R366	1-249-438-11	CARBON 56K 5% 1/4W	
R367	1-249-438-11	CARBON 56K 5% 1/4W	
R368	1-249-438-11	CARBON 56K 5% 1/4W	
R369	1-249-419-11	CARBON 1. 5K 5% 1/4W	
R370	1-249-419-11	CARBON 1. 5K 5% 1/4W	
R371	1-249-419-11	CARBON 1. 5K 5% 1/4W	
R372	1-249-419-11	CARBON 1. 5K 5% 1/4W	
R373	1-249-429-11	CARBON 10K 5% 1/4W	
R374	1-249-429-11	CARBON 10K 5% 1/4W	
R375	1-249-429-11	CARBON 10K 5% 1/4W	
R376	1-249-429-11	CARBON 10K 5% 1/4W	
R383	1-249-417-11	CARBON 1K 5% 1/4W	
R384	1-249-417-11	CARBON 1K 5% 1/4W	
R385	1-249-422-11	CARBON 2. 7K 5% 1/4W	
R401	1-249-433-11	CARBON 22K 5% 1/4W	
R402	1-249-433-11	CARBON 22K 5% 1/4W	
R404	1-249-425-11	CARBON 4. 7K 5% 1/4W	
R405	1-249-425-11	CARBON 4. 7K 5% 1/4W	
R406	1-249-425-11	CARBON 4. 7K 5% 1/4W	
R408	1-249-441-11	CARBON 100K 5% 1/4W	
R409	1-247-864-11	CARBON 24K 5% 1/4W	
R410	1-247-880-11	CARBON 110K 5% 1/4W	
R411	1-249-440-11	CARBON 82K 5% 1/4W	
R412	1-247-876-11	CARBON 75K 5% 1/4W	
R413	1-249-440-11	CARBON 82K 5% 1/4W	
R414	1-247-874-11	CARBON 62K 5% 1/4W	
R415	1-249-435-11	CARBON 33K 5% 1/4W	
R416	1-247-878-00	CARBON 91K 5% 1/4W	
R421	1-249-393-11	CARBON 10 5% 1/4W	
R422	1-249-393-11	CARBON 10 5% 1/4W	
R425	1-249-429-11	CARBON 10K 5% 1/4W	
R426	1-249-429-11	CARBON 10K 5% 1/4W	
R427	1-249-429-11	CARBON 10K 5% 1/4W	
R428	1-249-429-11	CARBON 10K 5% 1/4W	
R429	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R430	1-249-429-11	CARBON 10K 5% 1/4W	
R431	1-249-429-11	CARBON 10K 5% 1/4W	
R432	1-249-429-11	CARBON 10K 5% 1/4W	

< SWITCH >

△S201	1-571-722-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR) (E)	
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< VIBRATOR >

X351	1-579-314-11	VIBRATOR, CRYSTAL (22.5MHz)	
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MISCELLANEOUS

9	1-690-848-21	WIRE (FLAT TYPE) (33 CORE)	
10	1-690-849-21	WIRE (FLAT TYPE) (11 CORE)	
64	1-694-003-11	JAMPER, FILM (WITH TARMINAL)	
△76	1-575-651-21	CORD, POWER (AEP)	
△77	1-575-653-21	CORD, POWER (E)	
△78	1-574-358-31	CORD, POWER (WITH CONNECTOR) (AUS)	
△79	1-558-946-21	CORD, POWER (UK)	
△80	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
△81	1-590-836-11	CORD, POWER (US)	
* 106	1-452-538-11	MAGNET	
111	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
△156	8-848-144-11	DEVICE, OPTICAL KSS-240A	
157	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-504-1	MOTOR ASSY, SLED	
M102	X-4917-523-3	MOTOR ASSY, SPINDLE	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	
M702	A-4604-834-A	MOTOR ASSY, LOADING	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	
△T901	1-449-955-11	TRANSFORMER, POWER (AEP, UK, AUS)	
△T901	1-449-956-11	TRANSFORMER, POWER (E)	
△T901	1-450-876-11	TRANSFORMER, POWER (US)	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	

1-558-271-11	CORD, CONNECTION (EXCEPT AUS)	
1-558-271-11	CORD, CONNECTION (US)	
3-754-847-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (EXCEPT US)	
3-754-847-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
3-754-847-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	

*	4-951-269-01	INDIVIDUAL CARTON	
*	4-951-270-01	CUSHION (FRONT)	
*	4-951-273-01	CUSHION (REAR)	
	9-910-999-33	INSTRUCTION (US)	

HARDWARE LIST

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#3	7-682-661-09	SCREW +PSW 4X8	
#4	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT	
#5	7-685-647-79	SCREW, TAPPING	
#6	7-682-548-04	SCREW +BVTT 3X8 (S)	
#7	7-682-554-04	SCREW +B 3X25	
#8	7-621-255-15	SCREW +P 2X3	

The components identified by
mark △ or dotted line with mark.
△ are critical for safety.
Replace only with part number
specified.

MAIN

Ref. No.	Part No.	Description	Amount
000	1-00-00-01	WHEEL	100 00 1.00
000	1-00-00-02	WHEEL	100 00 1.00
000	1-00-00-03	WHEEL	100 00 1.00

C. WHEEL >

0000	1-00-00-01	WHEEL, WHEEL, WHEEL	
		(WHEEL, WHEEL) (0)	

C. WHEEL >

000	1-00-00-01	WHEEL, WHEEL, WHEEL	
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WHEEL >

0	1-00-00-01	WHEEL, WHEEL, WHEEL	
00	1-00-00-01	WHEEL, WHEEL, WHEEL	
00	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	

000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	

000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	
000	1-00-00-01	WHEEL, WHEEL, WHEEL	

000	1-00-00-01	WHEEL, WHEEL, WHEEL	
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000	1-00-00-01	WHEEL, WHEEL, WHEEL	

000	1-00-00-01	WHEEL, WHEEL, WHEEL	
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WHEEL >

Ref. No.	Part No.	Description	Amount
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WHEEL >

WHEEL >

1-00-00-01	WHEEL, WHEEL, WHEEL	
1-00-00-01	WHEEL, WHEEL, WHEEL	
1-00-00-01	WHEEL, WHEEL, WHEEL	
1-00-00-01	WHEEL, WHEEL, WHEEL	
1-00-00-01	WHEEL, WHEEL, WHEEL	
1-00-00-01	WHEEL, WHEEL, WHEEL	

0	1-00-00-01	WHEEL, WHEEL, WHEEL	
0	1-00-00-01	WHEEL, WHEEL, WHEEL	
0	1-00-00-01	WHEEL, WHEEL, WHEEL	
0	1-00-00-01	WHEEL, WHEEL, WHEEL	

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WHEEL >

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00	1-00-00-01	WHEEL, WHEEL, WHEEL	
00	1-00-00-01	WHEEL, WHEEL, WHEEL	
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00	1-00-00-01	WHEEL, WHEEL, WHEEL	
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00	1-00-00-01	WHEEL, WHEEL, WHEEL	
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00	1-00-00-01	WHEEL, WHEEL, WHEEL	
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The components listed here to work in or within the system. It is critical for safety. Because only with part number specified.

SS-D33

SERVICE MANUAL

*E Model
Australian Model*

SPECIFICATIONS

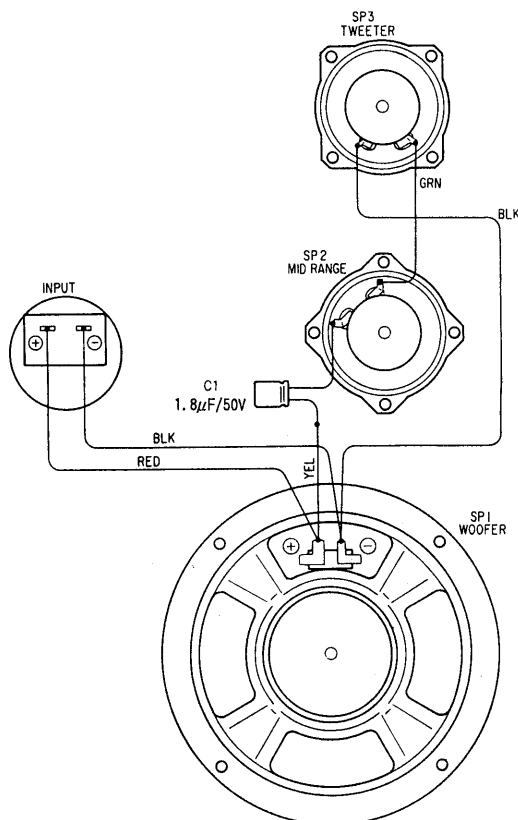
Type	3-way speaker system
Speaker unit	Woofer: 220 mm cone type Mid range: 65 mm cone type Tweeter: 65 mm cone type
Enclosure	Bass reflex
Rated impedance	6 ohms
Frequency range	45 Hz to 20,000 Hz
Dimension (w/h/d)	280 × 470 × 250 mm (11 1/8 × 18 5/8 × 9 7/8 inches)
Weight	6.8 kg (14 lb 16 oz)

Design and specifications subject to change without notice.



This set is the speaker system in LBT-A30 and LBT-A30K.

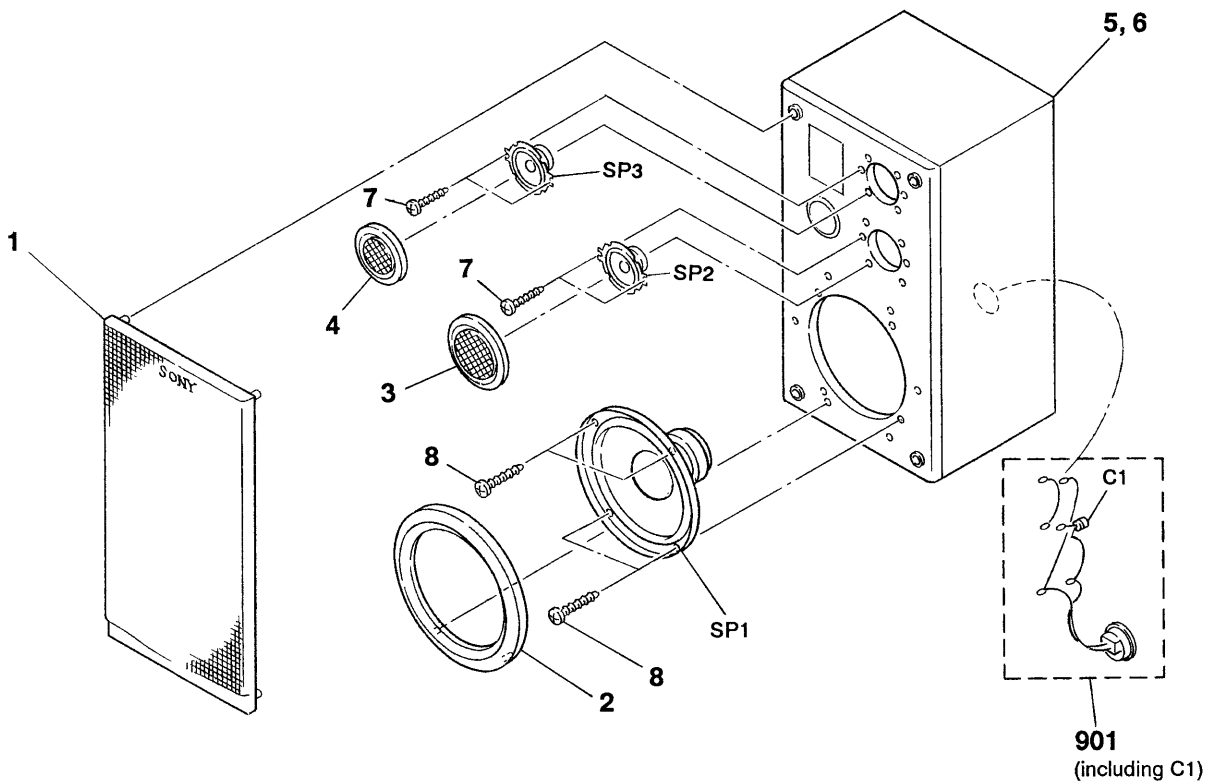
1. WIRING DIAGRAM



SPEAKER SYSTEM
SONY®

2. EXPLODED VIEW AND PARTS LIST

- Note:**
- The construction parts of an assembled part are indicated with a collation number in the remark column.
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.



Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
1	X-4942-240-1	FRAME ASSY, GRILLE		ELECTRICAL PARTS			
2	4-949-450-01	FRAME (W), ORNAMENTAL		*****			
3	X-4942-231-1	FRAME (M) ASSY, ORNAMENTAL		* 901	1-589-267-11	MOUNTED BOARD (NET WORK)	
4	X-4942-239-1	FRAME (T) ASSY, ORNAMENTAL		C1	1-123-543-00	ELECT (NONPOLAR) 1.8MF	50V
5	X-4942-241-1	CABINET (L) ASSY, SPEAKER		SP1	1-544-500-11	SPEAKER (20CM) WOOFER	
6	X-4942-242-1	CABINET (R) ASSY, SPEAKER		SP2	1-544-501-11	SPEAKER (6CM) MID-RANGE	
7	4-874-614-61	SCREW (M3.5X16)		SP3	1-544-501-11	SPEAKER (6CM) TWEETER	
8	4-936-542-01	SCREW (4X20), TAPPING, +B		*****			
*****				ACCESSORIES & PACKING MATERIALS			

				*	4-952-028-01	CUSHION	